

IMP. BUR. ENTOM.
— LIBRARY —
No. 801

THE PHILIPPINE JOURNAL OF SCIENCE

ALVIN J. COX, M. A., PH. D.
GENERAL EDITOR

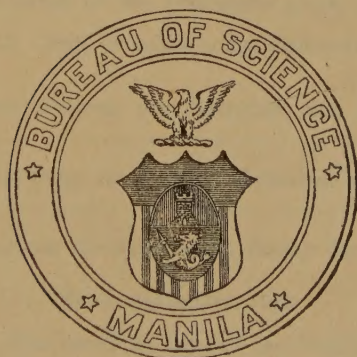
SECTION D GENERAL BIOLOGY, ETHNOLOGY, AND ANTHROPOLOGY

EDITED WITH THE COÖPERATION OF

ALVIN SEALE, A. B.; R. P. COWLES, PH. D.; C. F. BAKER, A. M.
S. F. LIGHT, M. A.; C. S. BANKS, M. S.; L. D. WHARTON, M. A.
W. SCHULTZE; H. O. BEYER, M. A.; R. C. MCGREGOR, A. B.
H. E. KUPFER, A. B.

VOLUME XI
1916

WITH 11 PLATES AND 3 TEXT FIGURES



MANILA
BUREAU OF PRINTING
1916

CONTENTS

No. 1, January, 1916

	Page.
SCHULTZE, W. A catalogue of Philippine Coleoptera.....	1

No. 2, March, 1916

SCHULTZE, W. A catalogue of Philippine Coleoptera (concluded).....	95
--	----

No. 3, May, 1916

BANKS, NATHAN. Neuropteroid insects of the Philippine Islands.....	195
Two plates.	
FLEUTIAUX, ED. Elateridæ des îles Philippines, II.....	219
SEALE, ALVIN. Sea products of Mindanao and Sulu, I: Food fishes and sharks.....	235
Two plates.	

No. 4, July, 1916

SEALE, ALVIN. Sea products of Mindanao and Sulu, II: Pearls, pearl shells, and button shells.....	245
Three plates.	
BUNKER, PAUL D. Nesting of the Philippine glossy starling.....	267
MCGREGOR, RICHARD C. New or noteworthy Philippine birds, I.....	269
Two text figures.	
KIEFFER, J. J. Neuer Beitrag zur Kenntnis der philippinischen Cynipiden	279
KIEFFER, J. J. Beschreibung einer neuen Mymaride aus den Philippinen	289
SCHULTZE, W. II. Beitrag zur coleopteren Fauna der Philippinen....	291
Two plates.	

No. 5, September, 1916

COCKERELL, T. D. A. The ceratinid bees of the Philippine Islands....	301
One text figure.	
MUIR, FREDERICK. A new Formosan Purohita (Delphacidæ).....	311
GROUVELLE, A. Nitidulidæ (Coléoptères) des îles Philippines récoltés par C. F. Baker, II.....	313
KIEFFER, J. J. Evaniiden (Hymenoptera) der Philippinen.....	317
SCHULTZE, W. III. Beitrag zur coleopteren Fauna der Philippinen....	347

No. 6, November, 1916

	Page.
✓ OSHIMA, MASAMITSU. A collection of termites from the Philippine Islands Two plates.	351
✓ MUIR, FREDERICK. Additions to the known Philippine Delphacidae (Hemiptera)	369
✓ FLEUTIAUX, ED. Melasidæ (Coléoptères) des îles Philippines récoltés par C. F. Baker.....	387
✓ KIEFFER, J. J. Beiträge zur Kenntnis der Gattung Loboscelidia Westwood (Hymenoptera)	399
✓ KIEFFER, J. J. Neue Stephanidae (Hymenoptera) der Philippinen....	403
ERRATA	413
INDEX	415

THE PHILIPPINE JOURNAL OF SCIENCE

D. GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

VOL. XI

JANUARY, 1916

No. 1

A CATALOGUE OF PHILIPPINE COLEOPTERA

By W. SCHULTZE

(*Manila, P. I.*)

INTRODUCTION

Since the publication of Baer's catalogue¹ many species of Coleoptera have been described from specimens collected in the Philippine Archipelago. Baer's catalogue consisted almost entirely of the names of species described from Philippine material; many species originally described from other localities were omitted although also found in the Philippines. The reason for this was probably that Philippine material is widely scattered in various collections.

Although the present catalogue is based mainly on the collections of the Bureau of Science and of Prof. C. F. Baker and my own collection, I have consulted also those in a number of European institutions. In 1906 I visited the British Museum (Natural History), London, and the Zoologische Museum, Dresden. In 1911 I again examined the latter collection as well as the Coleoptera in the Kgl. Museum, Berlin, in the Deutsche Entomologische Museum, Berlin-Dahlem, and in several large private collections. I take pleasure in expressing my thanks to the following entomologists for the identification of many specimens: Dr. Max Bernhauer, Horn, Austria; Mr. C. Felsche,² Leipzig, Germany; Mr. Hans Gebien, Hamburg, Germany; Prof. Dr. K. M. Heller, Dresden, Germany; Dr. Karl Jordan, Tring, England; Dr. Walther Horn, Berlin, Germany; Mr. J. Moser, Berlin, Germany; Dr. Fr. Ohaus, Berlin, Germany; Mr. J. Weise, Berlin, Germany. To Mr. Weise I am especially indebted for help in many ways.

¹Baer, G.-A., Catalogue des coléoptères des îles Philippines, *Ann. Soc. Ent. France* (1886), 97-200.

²Since deceased.

In many of the early collections of Philippine insects exact localities were not recorded. The term "Manila" or "Manille" in many cases was used synonymously with Philippines. This erroneous use of the term Manila as a geographic designation was due in part to insufficient data supplied by collectors and in part to the fact that the record of a more precise locality was not considered of importance. Most of the botanical as well as zoölogical specimens which are recorded as from Manila did in fact come from Manila, but many of them were collected a long way from that city. The use of Philippines as a locality is also misleading and is too indefinite for a region comprising some three thousand islands, where in numerous instances species are exceedingly local in occurrence.

In view of those facts an exact record for each species, if represented in the Bureau of Science collection, is given in the following order: Island, province, town, mountain or river, number, and collector.

The names of islands are printed in capitals and small capitals. The numbers are those of accessions of specimens in the Bureau of Science collection. The names of collectors are in italics. An asterisk following the name of a species indicates that the species is known to be of economic importance, and that something about it is to be found in the appendix to this catalogue. A dagger indicates that the species is represented in my private collection.

The following are the names of those who have contributed specimens to the Bureau of Science collection of Coleoptera:

Mr. R. J. Alvarez.
Mr. R. M. Araneta.
Mr. Bonifacio Arce.
Prof. Charles F. Baker.
Prof. Charles S. Banks.
Mr. C. Barredo.
Father R. E. Brown, S. J.
Mr. O. B. Burrell.
Mr. Mariano Canton.
Mr. William D. Carpenter.
Mr. Andres Celestino.
Mrs. Mary Strong Clemens.
Mr. George Compère.
Dr. Edwin B. Copeland.

Mr. Hugh M. Curran.
Prof. Harold Cuzner.
†Dr. Ralph T. Edwards.
Mr. M. Fernandez.
Dr. Fred W. Foxworthy.
Mr. M. Gaspar.
†Mr. J. A. Gilkerson.
Dr. Lawrence E. Griffin.
Mr. José Guerrero.
Dr. Leon M. Guerrero.
Dr. Maximilian Herzog.
Mr. W. I. Hutchinson.
Mr. Charles R. Jones.
Mr. Carrol H. Lamb.

Prof. Edgar M. Ledyard.	Dr. Walter R. Shaw.
Mr. H. Loewinsohn.	Dr. Warren D. Smith.
Mr. Charles Martin.	Mr. Paul L. Stangl.
Mr. C. I. Matti.	Mr. H. E. Stevens.
Mr. Richard C. McGregor.	Mr. D. Leroy Topping.
Dr. Edgar A. Mearns.	Capt. L. J. Van Schaick.
Prof. Elmer D. Merrill.	Mrs. N. K. Van Schaick.
Mr. M. L. Merritt.	Mr. Herbert S. Walker.
Mr. F. D. Nash.	Mr. J. L. Webb.
Mr. G. M. Nell.	Mr. C. M. Weber.
Mrs. H. Otto.	Mr. R. Werm.
Mr. C. I. Overman.	Mr. A. E. Wileman.
Mr. William F. Pack.	Mr. W. Williamson.
Mr. R. Paras.	Mr. Frank H. Willyoung.
Mr. H. W. Roberts.	Dr. Paul G. Woolley.
Father F. Sanchez, S. J.	Mr. Dean C. Worcester.
Mr. E. E. Schneider.	Mr. Frederick Worcester.
Mr. W. Schultze.	Mr. Theodore C. Zschokke.

In the study of economic Coleoptera (see appendix) it is important to know the scientific name of the plant attacked. For this purpose Merrill's dictionary³ is very helpful when the Filipino name of the plant is known. However, this work must be used with caution, for many local names are applied to more than one species. Of still greater value for this purpose is Merrill's Flora of Manila.⁴

Some genera and even entire families of Coleoptera have been omitted from this catalogue, although known to occur in the Philippines. This is due not to lack of specimens, but to the difficulty in getting them identified. For example, the collection of the Bureau of Science contains at least eighteen species belonging in the family Mordellidæ, but only one of these has been determined.

It is hoped that this catalogue may serve as a basis for future investigations on this great order of insects; that it may be of value to amateurs, teachers, and others in identifying Philippine Coleoptera; and especially, that it may be of assistance in connection with the study of injurious beetles, toward which end the economic appendix was compiled.

³ A dictionary of plant names of the Philippine Islands, *Pub. P. I. Bur. Gov. Labs.* (1903), No. 8.

⁴ *Pub. P. I. Bur. Sci. Manila* (1912), No. 5.

CATALOGUE OF PHILIPPINE COLEOPTERA

COLEOPTERA

ADEPHAGA

CARABIDÆ

CICINDELINÆ

Genus *TRICONDYLA* Latreille

aptera OLIV.,† Entom. (1790), 2, 7, Pl. 1, fig. 1.

aptera subsp. *globoicollis* CHAUD., Bull. Mosc. (1844), 3, 456.

frontalis W. HORN, Deutsche Ent. Zeitschr. (1892), 66.

vicina CHAUD., Deutsche Ent. Zeitschr. (1892), 457.

LUZON, Benguet, Irian (1277, *McGregor*); Zambales, Olongapo (7645, *Banks*); Laguna, San Antonio (8739, *Curran*); Ambos Camarines (9075, *Curran*); Cagayan, Lallo (10595, *Curran*): CALAYAN (592, *McGregor*): SIBUYAN (2078, *McGregor*): Ticao (9602, *McGregor*): POLILLO (12492, *McGregor*): MINDORO, Mount Halcon (6420, *Merrill*): BOHOL (6726, *McGregor*).

aptera subsp. *ovicollis* MOTSCH., Bull. Mosc. (1864), 3, 179.

LUZON.

aptera subsp. *punctipennis* CHEVR., Rev. Zool. (1841), 4, 221.

MINDANAO: SAMAR.

aptera subsp. *ventricosa* SCHAUM, Berl. Ent. Zeitschr. (1862), 6, 180.

LUZON, Tayabas, Baler (11615, *D. C. Worcester*).

cyanipes ESCHSCH.,† Zool. Atl. (1829), 1, 5, Pl. 4, fig. 2.

LUZON, Cavite, Silang (701, *Canton*); Benguet, Irian (963, 6523, *McGregor*); Rizal, Montalban (5488, *Banks*): Ticao (1457, *McGregor*): POLILLO (2491, *McGregor*): NEGROS, Occidental Negros, Maa (921, *Banks*), Mount Canlaon (6453, *Banks*).

cyanipes subsp. *brunnipes* MOTSCH., Bull. Mosc. (1861), 1, 628.

beccarii GESTRO, Ann. Mus. Civ. Genova (1874), 306.

LUZON, Benguet, Irian (1440, *McGregor*).

cyanipes subsp. *cavifrons* SCHAUM, Berl. Ent. Zeitschr. (1862), 6, 182.

PALAWAN, Iwahig (10733, *Schultze*).

cyanipes subsp. *conicicollis* CHAUD., Bull. Mosc. (1864), 3, 458.

NEGROS, Occidental Negros, Faraon (12208, *Curran*).

cyanipes subsp. *elongata* W. HORN, Deutsche Ent. Zeitschr. (1906), 32.

MINDORO: MINDANAO.

cyanipes subsp. *planiceps* SCHAUM, Berl. Ent. Zeitschr. (1862), 6, 181.

LUZON, Benguet, Baguio (8340, *Banks*).

Genus *COLLYRIS* FabriciusSubgenus *Neocollyris* W. Horn

acrollia CHAUD.,† Bull. Mosc. (1860), 288; Ann. Soc. Ent. France (1864), 520, Pl. 8, fig. 17.

LUZON, Rizal, Montalban Gorge (10366, *Schultze*); Laguna, Mount Maquiling (17829, *Baker*).

- affinis* W. HORN, Deutsche Ent. Zeitschr. (1892), 363.
speciosa CHAUD., Ann. Soc. Ent. France (1864), 519, Pl. 8, fig. 16.
- albitarsis* ERICHS.,*† Nov. Acta Ac. Leop. Car. (1834), 16, 220.
femorata WESTW., Proc. Zool. Soc. London (1837), 127.
longicollis W. HORN, Deutsche Ent. Zeitschr. (1892), 358.
 LUZON, Manila (2862, 3306, 3893, 3915, *Schultze*; 7996, *Banks*); Bataan, Lamac (6577, *Cuzner*); Tarlac, Gerona (939, *Fernandez*); Benguet, Baguio (11010, *McGregor*): NEGROS, Occidental Negros, Bago (6520, *Banks*): SIBUYAN (1980, *McGregor*): BATAN, Batanes (7770, *McGregor*): PALAWAN, Bacuit (11745, *Weber*).
- ampullacea* W. HORN, Deutsche Ent. Zeitschr. (1901), Beiheft, 60.
 BASILAN.
- angularis* W. HORN,† Deutsche Ent. Zeitschr. (1892), 358.
 LUZON, Laguna, Los Baños (*coll. Baker*).
- bonelli* GUÉR.,† Voy. Bellanger, Zool. (1834), 481, Pl. 2, fig. 1.
- bonelli* subsp. *paraguensis* W. HORN, Deutsche Ent. Zeitschr. (1894), 13.
 PALAWAN, Iwahig (10732, *Schultze*).
- chaudoiri* W. HORN, Deutsche Ent. Zeitschr. (1892), 362.
 MINDANAO.
- emarginata* DEJ.,† Spec. (1825), 1, 165.
longicollis OLIV., Entom. (1790), 2, 7, Pl. 2, fig. 17; CHAUD., Ann. Soc. Ent. France (1864), 486.
longicollis var. *duplominor* FABR., Syst. Eleuth. (1801), 1, 226;
 SCHAUM, Stett. Ent. Zeitg. (1847), 50.
brevicollis KLUG, Jahrb. Insektenk. (1834), 1, 46.
abbreviata MOSTCH., Bull. Mosc. (1864), 3, 178.
 PALAWAN, Iwahig (11749, 12191, *Weber*).
- erichsoni* W. HORN, Deutsche Ent. Zeitschr. (1892), 359.
- filicornis* W. HORN, Deutsche Ent. Zeitschr. (1895), 356.
- gracilis* W. HORN, Deutsche Ent. Zeitschr. (1894), 13.
 LUZON, Manila.
- plicata* SCHAUM, Journ. Ent. (1863), 2, 61.
 LUZON.
- rugel* W. HORN, Deutsche Ent. Zeitschr. (1892), 354.
 MINDANAO.
- simillor* W. HORN, Deutsche Ent. Zeitschr. (1893), 196.
similis W. HORN, Deutsche Ent. Zeitschr. (1892), 361.
 LUZON: MINDANAO.
- speciosa* SCHAUM,† Journ. Ent. (1863), 2, 62.
 MINDORO, Mount Halcon (6419, *Merrill*), Bongabon River (8414, *Schultze*).
- speciosula* W. HORN,† Deutsche Ent. Zeitschr. (1892), 361.
 PALAWAN, Iwahig (10731, *Schultze*; 13220, *Lamb*).
- waterhousei* CHAUD.,† Rev. Mag. Zool. (1864), 64, 104; Ann. Soc. Ent. France (1864), 521.
 SIBUYAN (1979, *McGregor*).

Genus PROTHYMA Hope

- bakeri* W. HORN,† Ent. Mitteil. (1914), 3, 315.
 LUZON, Tayabas, Malinao (coll. Baker); Laguna, Paete (McGregor).
heteromallicollis W. HORN,† Deutsche Ent. Zeitschr. (1909), 312.
 MINDANAO, Agusan River (13672, *Schultze*).
hopkinsi W. HORN,† Deutsche Ent. Zeitschr. (1909), 313.
 LUZON, Bataan, Lamao (7720, *Curran*).
lucidicollis CHAUD., Rev. Mag. Zool. (1869), 19, 23.
schultzei W. HORN, Phil. Journ. Sci., Sec. A (1908), 3, 273; Wytsm. Gen. Insect. (1910), fasc. 82 B, 175, Pl. 11, fig. 5.
 SIBUYAN (1965, *McGregor*): ROMBLON (2079, *McGregor*).

Genus THERATES Latreille

- fasciatus* FABR.,† Syst. Eleuth. (1801), 1, 244.
flavilabris FABR., Syst. Eleuth. (1801), 1, 244.
vigilax SCHAUM, Berl. Ent. Zeitschr. (1862), 6, 179.
 MINDANAO, Agusan River (13670, *Schultze*).
fasciatus subsp. *nigrosternalis* W. HORN, Deutsche Ent. Zeitschr. (1905), Beiheft, 10.
labiatus FABR.,† Syst. Eleuth. (1801), 1, 232.
labiatus subsp. *bidentatus* CHAUD., Ann. Soc. Ent. France (1861), 139.
labiatus subsp. *coracinus* ERICHS., Nov. Act. Leop. Car. (1834), 16, Suppl., 219.
caligatus BATES, Ent. Month. Mag. (1872), 9, 285.
 LUZON, Laguna, San Antonio (8740, *Curran*): TICA0 (1458, *McGregor*):
 SIBUYAN (1967, *McGregor*): MINDORO, Baco River (3138, *McGregor*),
 Mount Halcon (6421, *Merrill*), Bongabon (8377, *Schultze*): NEGROS,
 Occidental Negros, Pulupandan (10601, *Banks*).
labiatus subsp. *everetti* BATES, Cist. Ent. (1878), 334.
labiatus subsp. *fulvipennis* CHAUD., Bull. Mosc. (1848), 1, 15.
labiatus subsp. *sudans* W. HORN, Deutsche Ent. Zeitschr. (1892), 210.
 MINDANAO, Agusan River (13669, *Schultze*).
semperi SCHAUM,† Berl. Ent. Zeitschr. (1860), 185, Pl. 3, fig. 2.
bellulus BATES, Ent. Month. Mag. (1872), 286.
manillicus THOMS., Mus. Scient. (1860), 42.
 LUZON, Manila.

Genus ODONTOCHILA Castelnau

- melanopyga* SCHAUM,† Berl. Ent. Zeitschr. (1862), 173.
 LUZON, Benguet, Irisan (1274, *McGregor*); Rizal, Montalban Gorge
 (7529, *Schultze*): BATAN, Batanes (7773, *McGregor*).
rothschildi W. HORN, Deutsche Ent. Zeitschr. (1896), 152.
 LUZON.

Genus DILATOTARSA Dokhtouroff

- beccarli* GESTRO,† Ann. Mus. Civ. Genova (1880), 15, 49.
 LUZON, Benguet, Pauai (11081, *McGregor*).

Genus *CICINDELA* Linnæus

- aurovittata* BRULLE, Arch. Mus. (1839), 1, 127, Pl. 8, fig. 3.
- clara* SCHAUM,† Berl. Ent. Zeitschr. (1860), 4, 181, Pl. 13, fig. 3.
LUZON, Zambales, Olongapo (7575, *Banks*).
- clara* subsp. *aenula* W. HORN, Deutsche Ent. Zeitschr. (1905), Beiheft, 33.
LUZON, Rizal, Montalban Gorge (7528, *Schultze*).
- clara* subsp. *rugothoracica* W. HORN,† Phil. Journ. Sci., Sec. A (1907), 2, 77.
LUZON, Benguet, Irisan (1273, 1515, 7244, *McGregor*), Baguio (11327, *F. Worcester*).
- clara* subsp. *suavissima* SCHAUM, Berl. Ent. Zeitschr. (1862), 6, 176.
- conicollis* SCHAUM, Berl. Ent. Zeitschr. (1862), 6, 175.
LUZON.
- conspicua* SCHAUM,† Berl. Ent. Zeitschr. (1862), 6, 176.
LUZON, Benguet, Irisan (964, 1275, 1480, *McGregor*).
- despectata* W. HORN, Deutsche Ent. Zeitschr. (1892), 86; Wytsm. Gen. Ins. (1915), fasc. 82c, 296, Pl. 17, fig. 9.
- discreta* SCHAUM,† Journ. Ent. (1863), 2, 59.
elaphoroides DOKHT., Rev. Ent. (1882), 276.
indigna CHAUD., in litt. Cat. Coll. (1865), 27.
subfasciata W. HORN, Deutsche Ent. Zeitschr. (1892), 370.
LUZON, Nueva Ecija, Cabanatuan (9654, *McGregor*): MINDANAO, Agusan River (12509, *Celestino*; 13671, *Schultze*; 13702, *D. C. Worcester*).
- eo* W. HORN, Notes Leyden Mus. (1898), 20, 105.
LUZON, 1,500 to 1,800 meters.
- excisa* SCHAUM, Berl. Ent. Zeitschr. (1862), 6, 178.
MINDORO, Bongabon River (8359, *Schultze*).
- foveolata* SCHAUM, Journ. Ent. (1863), 2, 59.
LUZON, Manila (11497, *Schultze*).
- fugax* SCHAUM,† Berl. Ent. Zeitschr. (1862), 6, 177.
LUZON, Bataan, Lamao (7836, *Schultze*).
- holosericea* FABR., Syst. Eleuth. (1801), 1, 243.
- lacrymosa* DEJ.,† Spec. (1825), 1, 106.
insularis BLANCH., Voy. Pôle Sud (1853), 3, Pl. 1, fig. 1.
LUZON, Manila (2589, 3463, *Banks*); Tarlac, Gerona (375, *Fernandez*); Rizal, Montalban Gorge (5613, *Banks*); Zambales, Olongapo (7572, *Banks*): SIBUYAN (1981, *McGregor*): BATAN, Batanes (7772, *McGregor*): MINDORO, Bongabon River (8361, *Schultze*).
- macilentata* SCHAUM,† Berl. Ent. Zeitschr. (1862), 6, 178.
LUZON, Rizal, Montalban Gorge (7527, *Schultze*).
- mandibularis* SCHAUM, Berl. Ent. Zeitschr. (1860), 4, 182.
- mucronata* JORD.,† Nov. Zool. (1894), 663.
LUZON, Cagayan, Aparri (1513, *McGregor*).

- nana* SCHAUM,† Berl. Ent. Zeitschr. (1862), 6, 177.
LUZON, Rizal, Montalban Gorge (9263, *Schultze*).
- semperi* W. HORN, Deutsche Ent. Zeitschr. (1893), 320.
- sexpunctata* FABR.,† Syst. Ent. (1775), 220.
LUZON, Tarlac, Gerona (520, *Fernandez*).
- simulatrix* W. HORN, Deutsche Ent. Zeitschr. (1896), 150.
- stenodera* SCHAUM, Berl. Ent. Zeitschr. (1861), 5, 72.
- striolata* ILLG.,† Wiedem. Arch. (1800), 1, 144.
simivittata FABR., Syst. Eleuth. (1801), 1, 237.
vigorsi DEJ., Spec. (1831), 5, 223.
dorsolineata CHEVR., Rev. Zool. (1845), 95.
LUZON, Zambales, Olongapo (7573, *Banks*); Benguet, Baguio (11011, *McGregor*): ROMBLON (2080, *McGregor*).
- striolata* subsp. *tenuiscripta* FLEUT.,† Ann. Soc. Ent. France (1893), 489.
uniens W. HORN, Stett. Ent. Zeitg. (1896), 174.
PALAWAN, Bacuit (11744, *Weber*), Taytay (17185, *Schultze*).
- suavis* W. HORN, Deutsche Ent. Zeitschr. (1896), 151.
- sumatrensis* HERBST,† Käfer (1806), 10, 179, Pl. 172, fig. 1.
lequilloni GUÉR., Rev. Zool. (1841), 120.
LUZON, Rizal, Montalban Gorge (7530, *Schultze*): CEBU, Toledo (6846, *McGregor*).
- terminata* DEJ.,† Spec. (1825), 1, 142; HORN, Wytsm. Gen. Ins. (1915), fasc. 82c, 310, fig. 116.
incerta W. HORN, Deutsche Ent. Zeitschr. (1892), 81.
SIBUYAN (2077, *McGregor*): TICA0 (6537, *McGregor*): NEGROS, Occidental Negros, Bago (6521, *Banks*): PALAWAN, Taytay (17200, *Schultze*).
- triguttata* HERBST,† Käfer (1806), 10, 182, Pl. 172, fig. 5.
LUZON, Zambales, Olongapo (7574, *Banks*): NEGROS, Occidental Negros, Bago (6522, *Banks*): ROMBLON (2081, *McGregor*).
- virginalls* W. HORN, Deutsche Ent. Zeitschr. (1910), 358.
LUZON.
- virginea* SCHAUM, Berl. Ent. Zeitschr. (1860), 4, 181.
pauper W. HORN, Deutsche Ent. Zeitschr. (1896), 151.
- virginea* subsp. *interposita* W. HORN, Deutsche Ent. Zeitschr. (1892), 76.
CAMIGUIN, Babuyan (7771, *McGregor*).

SCARITINÆ

Genus SCARITES Fabricius

- longiusculus* CHAUD., Ann. Soc. Ent. Belg. (1880), 23, 86.
- mancus* BONELLI, Mém. Acad. Turin (1813), 473; CHAUD., Ann. Soc. Ent. Belg. (1880), 23, 102.
- semirugosus* CHAUD., Bull. Mosc. (1855), 28, 90; Ann. Soc. Ent. Belg. (1880), 23, 82.
rugipennis CHAUD., Bull. Mosc. (1855), 28, 82.

Genus **THLIBOPS** Putzeys

omega HELLER, Abh. Mus. Dresden (1899), 7, 3.

Genus **CLIVINA** Latreille

castanea WESTW., Proc. Zool. Soc. London (1837), 128; PUTZ., Ann. Soc. Ent. Belg. (1866), 10, 131.

MORIONINÆ

Genus **MORIO** Latreille

angustus CHAUD., Bull. Mosc. (1880), 55, 346.

intermedius CHAUD., Bull. Mosc. (1880), 55, 344.

luzonicus CHAUD., Bull. Mosc. (1852), 25, 81; (1880), 55, 344; PUTZ., Ann. Mus. Civ. Genova (1875), 7, 726.

TRIGONOTOMINÆ

Genus **LESTICUS** Dejean

Subgenus **Triplogenius** Chaudoir

gregori KUNTZ., Ent. Rdsch. (1911), 28, 175.

LUZON, Benguet, Irisan (*McGregor*).

insignis GESTRO, Ann. Mus. Civ. Genova (1882), 18, 310.

philippinicus KUNTZ., Ent. Rdsch. (1911), 28, 175.

CEBU, Toledo (7430, *McGregor*).

prasinus TSCHIT., Horae Soc. Ent. Ross. (1900), 178.

SULU ISLANDS.

Genus **TRIGONOTOMA** Dejean

leotaudi TSCHIT., Horae Soc. Ent. Ross. (1900), 158.

luzonica CHAUD., Ann. Soc. Ent. Belg. (1868), 11, 161.

LUZON.

palavanica TSCHIT., Horae Soc. Ent. Ross. (1896), 263.

PALAWAN, Bacuit (11797, *Weber*).

Genus **PTEROSTICHUS** Bonelli

piscescens CHAUD., Bull. Mosc. (1873), 46, 114.

Genus **AULACOCAELIUS** Chaudoir

liopleurus CHAUD., Bull. Mosc. (1869), 42, 406.

LUZON.

PLATYNINÆ

Genus **PLATYNUS** Bonelli

laetus ERICHS., Nov. Act. Leop. Car. (1834), Suppl., 222, Pl. 37, fig. 2.

Genus **COLPODES** MacLeay

abropoides CHAUD., Ann. Soc. Ent. France (1878), 361.

amoenus CHAUD., Ann. Soc. Ent. France (1859), 326; (1878), 367.

apicalis CHAUD., Ann. Soc. Ent. France (1878), 367.

luzonicus CHAUD., Ann. Soc. Ent. France (1878), 366.

LUZON.

ruficeps MACLEAY, Annul. Javan. (1825), 25; CHAUD., Ann. Soc. Ent. France (1859), 348.

Genus *PERIGONA* Castelnau

luzonica PUTZ., Ann. Mus. Civ. Genova (1875), 7, 728.

ODACANTHINÆ

Genus *OPHIONEA* Eschscholtz

cyanoccephala FABR., Ent. Syst., Suppl. (1798), 60; DEJ., Spec. (1825), 1, 173; LACORD., Gen. Col., Atl. (1854), Pl. 3, fig. 2.

Genus *CASNOIDEA* Laporte

bakeri DUP., Ann. Soc. Ent. Belg. (1913), 270.

LUZON, Laguna, Los Baños (*coll. Baker*).

DRYPTINÆ

Genus *DRYPTA* Fabricius

lineola DEJ., Spec. (1825), 1, 184; CHAUD., Bull. Mosc. (1877), 52, 262.

lineola var. *philippinensis* CHAUD., Bull. Mosc. (1877), 52, 262.

LEBIINÆ

Genus *PHYSODERA* Eschscholtz

dejeanii ESCHSCH., Zool. Atl. (1829), 2, Pl. 8, fig. 6; LACORD., Gen. Col., Atl. (1854), 1, 130, Pl. 4, fig. 3.

LUZON.

Genus *LIOPTERA* Chaudoir

quadriguttata CHAUD., † Ann. Soc. Ent. Belg. (1868), 12, 208.

LUZON, Rizal, Montalban (*Schultze*).

Genus *DOLICHOCTIS* Schmidt-Goebel

gilvipes DEJ., Spec. (1831), 5, 396; CHAUD., Bull. Ann. Soc. Ent. Belg. (1868), 12, 248.

Genus *MISCELUS* Klug

paradoxus PUTZ., Ann. Mus. Civ. Genova (1875), 7, 724.

THYREOPTERINÆ

Genus *CATASCOPUS* Kirby

aequatus DEJ., Spec. (1831), 5, 752; CAST., Hist. Nat. Ins. (1837), 1, 54.

LUZON.

elegans FABR., Syst. El. (1801), 1, 184; CHAUD., Bull. Mosc. (1850), 23, 354; Berl. Ent. Zeitschr. (1861), 5, 120; CAST., Hist. Nat. Ins. (1837), 1, 54, Pl. 4, fig. 2.

amoenus CHAUD., Berl. Ent. Zeitschr. (1861), 5, 120; Rev. Mag. Zool. (1872), 23, 247; SAUND., Trans. Ent. Soc. London (1863), 468.

nitidulus CAST., Et. Ent. (1834), 60.

fascialis WIEDEM., Zool. Mag. (1819), 1, 165; DEJ., Spec. (1825), 1, 329; CHAUD., Bull. Mosc. (1850), 23, 352; Berl. Ent. Zeitschr. (1861), 5, 116; SAUND., Trans. Ent. Soc. London (1863), 468.

hardwickei KIRBY, Trans. Linn. Soc. London (1825), 14, 98, Pl. 3, fig. 1.

gracilis OBERTH., Notes Leyden Mus. (1883), 5, 220.

MINDANAO.

simplex CHAUD., Rev. Mag. Zool. (1872), 23, 246.

MINDANAO.

Genus *PERICALUS* MacLeay

undatus CHAUD., Bull. Mosc. (1848), 21, 111.

LUZON, Laguna, Los Baños (17845, *Baker*).

CRATOCERINÆ

Genus *BRACHIDIUS* Chaudoir

crassicornis CHAUD., Bull. Mosc. (1852), 26, 78.

ORTHOGONINÆ

Genus *ORTHOGONIUS* Dejean

alternans WIEDEM., Zool. Mag. (1823), 2, 52; CHAUD., Ann. Soc. Ent. Belg. (1871), 102.

LUZON.

hypocrita CHAUD., Ann. Soc. Ent. Belg. (1871), 102.

luzonicus CHAUD., Ann. Soc. Ent. Belg. (1871), 123.

philippinensis CHEVR., Rev. Zool. (1841), 221.

BRACHININÆ

Genus *PHEROPSOPHUS* Solier

emarginatus CHAUD., Ann. Soc. Ent. Belg. (1876), 20.

fumigatus DEJ., Spec. (1825), 1, 307; CHAUD., Ann. Soc. Ent. Belg. (1876), 40.

fuscicollis DEJ., Spec. (1825), 1, 306.

fuscicollis var. *ambiguus* DEJ., Spec. (1825), 1, 304; CHAUD., Ann. Soc. Ent. Belg. (1876), 37.

girionieri EYD. et SOUL., Rev. Zool. (1839), 264; DESM., Voy. La Bonite (1841), 1, 293, Pl. 2, fig. 2; CHAUD., Ann. Soc. Ent. Belg. (1876), 32.

LUZON: MINDANAO.

Genus **BRACHYNUS** Weber

luzonicus CHAUD., Ann. Soc. Ent. Belg. (1876), 68.
LUZON.

piceus CHAUD., Ann. Soc. Ent. Belg. (1876), 53.

CHLAENIINÆ

Genus **CHLAENIUS** Bonelli

binotatus DEJ., Spec. (1826), 2, 302.

maculifer CAST., Notes Austr. Col. (1867), 62.

punctatus CHAUD., Bull. Mosc. (1856), 29, 200.

puncticeps GEMM. et HAR., Cat. (1869), 224.

binotatus var. *biguttatus* MONTR., Ann. Soc. Ent. France (1862), 237.

binotatus var. *guttatus* ESCHSCH., Zool. Atl. (1829), 5, 26, Pl. 25, fig. 8;
FAIRM., Rev. Zool. (1849), 282.

LUZON, Manila (12137, *Schultze*).

femoratus DEJ., Spec. (1826), 2, 328; CHAUD., Ann. Mus. Civ. Genova (1876), 8, 93.

flavofemoratus CAST., Et. Ent. (1834), 81, Pl. 1, fig. 3; CHAUD., Bull. Mosc. (1856), 29, 244.

MINDANAO, Agusan River (13685, *Schultze*).

hamatus ESCHSCH., Zool. Atl. (1831), 5, 26; DEJ., Spec. (1831), 5, 633;
CHAUD., Ann. Mus. Civ. Genova (1876), 8, 63.

leucops WIEDEM., Zool. Mag. (1823), 2, 52; CHAUD., Ann. Mus. Civ. Genova (1876), 8, 71.

aeruginosus CHAUD., Bull. Mosc. (1856), 29, 271; CHAUD., Ann. Mus. Civ. Genova (1876), 8, 71.

luzonicus CHAUD., Bull. Mosc. (1856), 29, 199; Ann. Mus. Civ. Genova (1876), 8, 159.

semperi CHAUD., Ann. Mus. Civ. Genova (1876), 8, 92.

Genus **SYSTOLOCRANIUS** Chaudoir

sulcatus ESCHSCH., Zool. Atl. (1829), 5, 28; CHAUD., Ann. Soc. Ent. France (1882), 335.

LUZON.

HARPALINÆ

Genus **DIORYCHE** MacLeay

laticeps DEJ., Spec. (1829), 4, 76.

LUZON.

Genus **ANISODACTYLUS** Dejean

javanus DEJ., Spec. (1829), 4, 146.

DYTISCIDÆ

HYDROPORINÆ

Genus **HYPHYDRUS** Illiger

xanthomelas RÉGIMB., Ann. Soc. Ent. France (1877), 361; (1899), 207.
LUZON.

Genus **CLYPEODYCTES** Régimbart

atomus RÉGIMB., Ann. Soc. Ent. France (1877), 361; (1899), 221.
LUZON.

pseudogeminus RÉGIMB., Ann. Soc. Ent. France (1877), 360; (1899), 224.
LUZON: PALAWAN.

transversus SHARP, On Dyt. (1882), 358; RÉGIMB., Ann. Soc. Ent. France (1899), 229.
LUZON.

Genus **HYDROVATUS** Motschulsky

acuminatus MOTSCH., Et. Ent. (1859), 42; SHARP, On Dyt. (1881), 326;
RÉGIMB., Ann. Soc. Ent. France (1899), 235.
badius CLARK, Trans. Ent. Soc. London (1863), 424.
mallaccae CLARK, Trans. Ent. Soc. London (1863), 425.
consanguineus RÉGIMB., Notes Leyden Mus. (1880), 2, 212.

ferrugatus RÉGIMB., Ann. Soc. Ent. France (1877), 360; (1899), 232.
LUZON.

nigrita SHARP, On Dyt. (1882), 33; RÉGIMB., Ann. Soc. Ent. France (1899), 241.
BOHOL.

picipennis MOTSCH., Et. Ent. (1859), 40; RÉGIMB., Ann. Soc. Ent. France (1899), 241.

pumilus SHARP, On Dyt. (1882), 331; RÉGIMB., Ann. Soc. Ent. France (1899), 235.
LUZON.

pusillus RÉGIMB., Ann. Mus. Civ. Genova (1881), 16, 620; RÉGIMB., Ann. Soc. Ent. France (1899), 236.

NOTERINÆ

Genus **HYDROCOPTUS** Sharp

scapularis RÉGIMB., Ann. Soc. Ent. France (1899), 244.

Genus **CANTHYDRUS** Sharp

semperi WEHNCKE, Deutsche Ent. Zeitschr. (1876), 223; RÉGIMB., Ann. Soc. Ent. France (1899), 247.
auritus RÉGIMB., Ann. Soc. Ent. France (1877), 350.
LUZON.

LACCOPHILINÆ

Genus **LACCOPHILUS** Leach

baeri RÉGIMB., Ann. Soc. Ent. France (1877), 357; (1899), 264.
LUZON.

cingulatus SHARP, On Dyt. (1882), 314; RÉGIMB., Ann. Soc. Ent. France (1899), 261.
LUZON.

parvulus AUBÉ, Spec. (1838), 6, 429; RÉGIMB., Ann. Soc. Ent. France (1899), 257.

parvulus var. *decoratus* BOHEM., Res. Eugen. (1858), 20.
proteus RÉGIMB., Ann. Soc. Ent. France (1877), 358.
 LUZON.

ponticus SHARP, On Dyt. (1882), 311.

sharpi RÉGIMB., Ann. Soc. Ent. France (1889), 151; (1899), 256.
flexuosus SHARP, On Dyt. (1882), 310.

sharpi var. *clarki* SHARP, On Dyt. (1882), 313.

transversalis RÉGIMB., Ann. Soc. Ent. France (1877), 357; (1899), 261.
 LUZON.

Genus NEPTOSTERNUS Sharp

hydaticoides RÉGIMB., Ann. Soc. Ent. France (1877), 359; (1899), 270.

DYTISCINÆ

Genus PLATYNECTES Régimbart

decempunctatus FABR., † Syst. Ent. (1775), 232; SHARP, On Dyt. (1882),
 540, Pl. 14, fig. 175; RÉGIMB., Ann. Soc. Ent. France (1899), 283.

decempunctatus var. *semperi* WEHNCKE, in litt.; RÉGIMB., Ann. Soc. Ent.
 France (1899), 285.

LUZON, Benguet, Baguio (2901, *Herzog*; 9903, *Curran*).

Genus LACCONNECTES Motschulsky

oceanicus RÉGIMB., Ann. Soc. Ent. France (1899), 291.
 BALABAC.

Genus COPELATUS Erichson

heterogynus RÉGIMB., Ann. Soc. Ent. France (1899), 295.
 PALAWAN.

masculinus RÉGIMB., Ann. Soc. Ent. France (1899), 295.
 LUZON.

quadrisingnatus RÉGIMB., Ann. Soc. Ent. France (1877), 356; (1899), 298.
 LUZON.

Genus HYDATICUS Leach

bihamatus AUBÉ, † Spec. (1838), 174; SHARP, On Dyt. (1882), 656; RÉGIMB.,
 Ann. Soc. Ent. France (1899), 316.

TICAO (7475, *McGregor*): PALAWAN, Quinina River (10755, *Schultze*),
 Taytay (17137, *Schultze*).

fabricii MACLEAY, † Annul. Javan. (1833), 134; SHARP, On Dyt. (1882), 663;
 RÉGIMB., Ann. Soc. Ent. France (1899), 324.

rufulus AUBÉ, Spec. (1838), 199.

rhantoides SHARP, On Dyt. (1882), 663.

confusus BOHEM., Res. Eugen. (1858), 21.

LUZON, Manila (2163, 5606, 10233, *Schultze, Banks*): PALAWAN, Tay-
 tay (17111, *Schultze*), Lake Manguao (17129, *Merrill*).

luzonicus AUBÉ, † Spec. (1838), 179; SHARP, On Dyt. (1882), 657; RÉGIMB.,
 Ann. Soc. Ent. France (1899), 314.

LUZON, Manila (5733, *Banks*); Rizal, Montalban Gorge (5608,
Schultze).

macularis RÉGIMB.,† Ann. Soc. Ent. France (1899), 321.

PALAWAN, Quinina River (10756, *Schultze*), Taytay (17192, *Schultze*).

pacificus AUBÉ,† Spec. (1838), 177; RÉGIMB., Ann. Soc. Ent. France (1899), 314.

philippinensis WEHNCKE,† Stett. Ent. Zeitg. (1876), 197; RÉGIMB., Ann. Soc. Ent. France (1899), 330.

leveillei RÉGIMB., Ann. Soc. Ent. France (1877), 356.

duplex SHARP, On Dyt. (1882), 669.

LUZON, Rizal, Montalban Gorge (5607, *Banks, Schultze*): PALAWAN, Iwahig (10752, *Schultze*), Taytay (17110, *Schultze*).

vittatus FABR.,† Syst. Ent. (1775), 825; SHARP, On Dyt. (1882), 670; RÉGIMB., Ann. Soc. Ent. France (1899), 328.

vittatus var. *bipunctatus* WEHNCKE, Stett. Ent. Zeitg. (1876), 196.

LUZON, Manila (9483, *Parás*).

Genus SANDRACOTTUS Sharp

baeri RÉGIMB.,† Ann. Soc. Ent. France (1877), 355; (1899), 338.

insignis WEHNCKE, Stett. Ent. Zeitg. (1876), 194; SHARP, On Dyt. (1882), 687.

baeri var. *ornatus* SHARP, On Dyt. (1882), 689.

LUZON, Manila (2360, *Schultze*): PALAWAN, Quinina River (10754, *Schultze*).

Genus RHANTATICUS Sharp

signatipennis CAST., Etud. Ent. (1835), 95; SHARP, On Dyt. (1882), 691; RÉGIMB., Ann. Soc. Ent. France (1899), 340.

LUZON.

Genus ERETES Castelnau

sticticus LINN.,† Syst. Nat. (1767), 1, (2), 666; SHARP, On Dyt. (1882), 699; RÉGIMB., Ann. Soc. Ent. France (1899), 340.

CALAYAN, Babuyanes (612, *McGregor*): LUZON, Manila (2144, 3970, *Schultze*).

Genus CYBISTER Curtis

celebensis SHARP, On Dyt. (1882), 745; RÉGIMB., Ann. Soc. Ent. France (1899), 346.

japonicus SHARP,† Trans. Ent. Soc. London (1873), 45; On Dyt. (1882), 748; RÉGIMB., Ann. Soc. Ent. France (1899), 398.

LUZON, Manila (7866, *Edwards*); Rizal, Montalban (*Schultze*).

limbatus FABR.,† Syst. Ent. (1775), 230; SHARP, On Dyt. (1882), 739; RÉGIMB., Ann. Soc. Ent. France (1899), 342.

CALAYAN, Babuyanes (613, *McGregor*): LUZON, Manila (7533, *Schultze*).

sugillatus ERICHS., Nov. Act. Leop. Car., Suppl. (1834), 227; SHARP, On Dyt. (1882), 717; RÉGIMB., Ann. Soc. Ent. France (1899), 355.

bisignatus AUBÉ, Spec. (1838), 88.

notasicus AUBÉ, Spec. (1838) 90.

olivaceus BOHEM., Res. Eugen. (1858), 21.

LUZON.

tripunctatus OLIV., † Ent. (1795), 3, 40, 14, Pl. 3, fig. 24; SHARP, On Dyt. (1882), 727; RÉGIMB., Ann. Soc. Ent. France (1899), 351.

tripunctatus var. *temnenkl* AUBÉ, Spec. (1838), 74.
PALAWAN, Iwahig (10751, *Schultze*).

GYRINIDÆ

ENHYDRINÆ

Genus DINEUTES MacLeay

australis FABR., Syst. Ent. (1775), 235; Syst. Eleuth. (1801), 275.
LUZON.

curtulus RÉGIMB., Ann. Soc. Ent. France (1907), 151.

GYRININÆ

Genus GYRINUS Geoffroy

oceanicus RÉGIMB., Ann. Soc. Ent. France (1883), 154; (1891), 675.

sericeo-limbatus RÉGIMB., Ann. Soc. Ent. France (1883), 185; (1907), 181.

tenuistriatus RÉGIMB., Ann. Soc. Ent. France (1883), 145.

ORECTOCHILINÆ

Genus ORECTOCHILUS Lacordaire

acuductus RÉGIMB., Ann. Soc. Ent. France (1907), 204.
BALABAC.

baeri RÉGIMB., Ann. Soc. Ent. France (1886), 262.

discus AUBÉ, Spec. (1838), 743; RÉGIMB., Ann. Soc. Ent. France (1883), 422.

LUZON: MINDANAO.

oberthüri RÉGIMB., Ann. Soc. Ent. France (1883), 423; (1907), 208.
LUZON: MINDANAO.

palawanensis RÉGIMB., Ann. Soc. Ent. France (1907), 195.
PALAWAN.

pulchellus RÉGIMB., Ann. Soc. Ent. France (1883), 424; (1907), 210.
LUZON: MINDANAO.

RHYSODIDÆ

Genus RHYSODES Dalman

Subgenus Omoglymmius Ganglbauer

philippinensis CHEVR., † Bull. Ann. Soc. Ent. France (1875), 183; GROUV., Rev. d'Ent. (1903), 22, 99.

LUZON, Manila (3551, *Brown*; 5861, *Banks*): PALAWAN, Bacuit (12301, *Weber*).

CUPEDIDÆ

Genus CUPES Fabricius

mucidus CHEVR., Guér. Icon. K. Anim. Ins. (1838), 58.

POLYPHAGA

STAPHYLINIDÆ

OXYTELINÆ

Genus **ELEUSIS** Castelnau

fusciceps KRAATZ, Arch. Naturgesch. (1859), 25, 184.

LUZON, Laguna, Los Baños (coll. Baker).

philippina BERNH., Verh. Zool. Bot. Ges. Wien (1914), 76.

LUZON, Laguna, Los Baños (coll. Baker).

Genus **BOROLINUS** Bernhauer

javanicus CAST., Etud. Ent. (1835), 1, 126, Pl. 4, fig. 6; ERICHS., Gen. Staph. (1839-40), 817.

javanicus var. *nigricollis* FAUV., Rev. d'Ent. (1902), 21, 10.

minutus CAST., † Hist. Nat. (1840), 1, 186.

bispinus ERICHS., Gen. Staph. (1840), 827.

LUZON, Laguna, Magdalena (1652, 1750, Schultze).

Genus **PRIOCHIRUS** Sharp

Subgenus **Plastus** Bernhauer

curranii BERNH., † Phil. Journ. Sci., Sec. D (1912), 7, 246.

LUZON, Benguet, Mount Pulog (10262, Curran).

luzonicus FAUV., Rev. d'Ent. (1886), 5, 143; Ann. Soc. Ent. France (1886), 179.

LUZON, Nueva Vizcaya, Bayombong (9902, Curran).

manilensis BERNH., † Phil. Journ. Sci., Sec. D (1912), 7, 247.

LUZON, Manila (2510, Schultze).

philippinus BERNH., Phil. Journ. Sci., Sec. D (1912), 7, 245.

LUZON, Benguet, Baguio (9921, Curran).

schultzei BERNH., † Phil. Journ. Sci., Sec. D (1912), 7, 246.

MINDORO, Bongabon (8400, Schultze).

Genus **THORACOCIRUS** Bernhauer

foersteri BERNH., Deutsche Ent. Zeitschr. (1903), 156.

LUZON, Laguna, Los Baños (coll. Baker).

Genus **ANCAEUS** Fauvel

nitidissimus BERNH., Deutsche Ent. Zeitschr. (1905), 10.

LUZON, Laguna, Los Baños (coll. Baker).

Genus **LISPINUS** Erichson

bakeri BERNH., Verh. Zool. Bot. Ges. Wien (1914), 80.

LUZON, Laguna, Los Baños (coll. Baker).

fulvus MOTSCH., Bull. Mosc. (1857), 4, 495.

LUZON.

impressicollis MOTSCH., Bull. Mosc. (1857), 4, 495; KRAATZ, Arch. f. Naturgesch. (1859), 25, 186; FAUV., Rev. d'Ent. (1903), 22, 150.
filiformis WALK., Ann. & Mag. Nat. Hist. (1858), 205.
quadratus BLACKB., Trans. Roy. Dublin Soc. London (1885), 125.
 LUZON.

nitidipennis BERNH., Verh. Zool. Bot. Ges. Wien (1914), 81.
 LUZON, Laguna, Los Baños (*coll. Baker*).

Genus *THORACOPHORUS* Motschulsky

brevicristatus HORN, Trans. Am. Ent. Soc. (1871), 332; FAUV., Bull. Soc. Linn. Norm. (1865), 2, 176.
brevicristatus var. *deletus* FAUV., Rev. d'Ent. (1902), 21, 32.

Genus *TROGOPHLOEUS* Mannerheim

Indicus KRAATZ,† Arch. Naturgesch. (1859), 25, 179; FAUV., Rev. d'Ent. (1886), 5, 144; (1889), 8, 247.
ceylonicus BERNH., Deutsche Ent. Zeitschr. (1902), 44.
flavipes MOTSCH., Bull. Mosc. (1861), 34, 43; FAUV., Rev. d'Ent. (1903), 22, 150.
 LUZON, Laguna, Magdalena (1653, *Schultze*).
siamensis FAUV.,† Rev. d'Ent. (1886), 5, 144; Ann. Soc. Ent. France (1886), 178.
 CALAYAN (7256, *McGregor*).

simplex MOTSCH., Bull. Mosc. (1857), 30, 505; KRAATZ, Arch. Naturgesch. (1859), 25, 180; FAUV., Ann. Mus. Civ. Genova (1878), 13, 26.

Genus *OXYTELUS* Gravenhorst

celebensis FAUV., Rev. d'Ent. (1886), 5, 145; Ann. Soc. Ent. France (1886), 178.
lucena BERNH., Stett. Ent. Zeitg. (1903), 64, 34.
 LUZON, Benguet, Trinidad (8220, *Banks*).
megaceros FAUV., Rev. d'Ent. (1895), 14, 201.
megaceros var. *flavicollis* BERNH., Phil. Journ. Sci., Sec. D (1912), 7, 247.
nitidifrons WOLL., Ann. & Mag. Nat. Hist. (1871), 3, 411.
advena SHARP, Trans. Ent. Soc. London (1880), 50; FAUV., Rev. d'Ent. (1902), 21, 65.

Genus *PLATYSTETHUS* Mannerheim

spectabilis KRAATZ, Wieg. Arch. (1859), 25, 170.

Genus *BLEDIUS* Mannerheim

compressicollis BERNH.,† Phil. Journ. Sci., Sec. D (1912), 7, 247.
 LUZON, Manila (5777, *Banks*).
hoplites FAUV., Rev. d'Ent. (1886), 5, 146.
philippinus BERNH.,† Phil. Journ. Sci., Sec. D (1912), 7, 248.
 LUZON, Manila (2398, 2410, 8063, *Banks*).

Genus **OSORIUS** Latreille

- strigiventris** BERNH., Verh. Zool. Bot. Ges. Wien (1914), 88.
LUZON, Laguna, Los Baños (*coll. Baker*).

STENINÆ

Genus **STENUS** Latreille

Subgenus **Stenus** Bernhauer

- annamita** FAUV., Rev. d'Ent. (1895), 207.
LUZON.

Subgenus **Hypostenus** Rey

- bakeri** BERNH., Verh. Zool. Bot. Ges. Wien (1914), 96.
LUZON, Laguna, Los Baños (*coll. Baker*).
- banosanus** BERNH., Verh. Zool. Bot. Ges. Wien (1914), 94.
LUZON, Laguna, Los Baños (*coll. Baker*).
- montalbanensis** BERNH., † Phil. Journ. Sci., Sec. D (1912), 7, 249.
LUZON, Rizal, Montalban Gorge (5456, *Banks*).
- philippinus** BERNH., † Phil. Journ. Sci., Sec. D (1912), 7, 249.
LUZON, Rizal, Montalban Gorge (5649, *Banks*).
- splendidus** BERNH., Verh. Zool. Bot. Ges. Wien (1914), 95.
LUZON, Laguna, Los Baños (*coll. Baker*).
- velocipes** FAUV., Rev. d'Ent. (1886), 5, 146; Ann. Soc. Ent. France (1886), 6, 179.

PHAEDERINÆ

Genus **PINOPHILUS** Gravenhorst

- javanus** ERICHS., † Gen. Spec. Staph. (1839), 672; KRAATZ, Arch. Naturgesch. (1859), 25, 156; FAUV., Rev. d'Ent. (1904), 23, 68.
pallipes KRAATZ, Arch. Naturgesch. (1859), 25, 156.
insignis SHARP, Trans. Ent. Soc. London (1877), 77.
LUZON, Manila (2804, *Schultze*).

Genus **PALAMINUS** Erischson

- pennifer** FAUV., Rev. d'Ent. (1904), 23, 320.
- philippinus** BERNH., Verh. Zool. Bot. Ges. Wien (1914), 98.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **PAEDERUS** Fabricius

- alternans** WALK., † Ann. & Mag. Nat. Hist. (1858), III, 2, 205.
ruficoxis KRAATZ, Arch. Naturgesch. (1859), 25, 151.
LUZON, Manila (2399, *Banks*).
- chilensis** FAUV., Bull. Soc. Linn. Norm. (1867), 1, 120; Rev. d'Ent. (1886), 5, 148.
- cyancephalus** ERICHS., Gen. Spec. Staph. (1839), 662; KRAATZ, Arch. Naturgesch. (1859), 25, 152.
indicus MOTSCH., Bull. Mosc. (1858), 31, 634.

- fuscipes* CURTIS,† Brit. Ent. (1834), 3, 108; GANGLB., Käf. Mitt.-Eur. (1895), 2, 537.
aestuans ERICHS., Gen. Spec. Staph. (1839), 655.
angolensis ERICHS., Arch. Naturgesch. (1843), 9, 222.
corsicus GAUT., Ann. Soc. Ent. France (1861), 393.
erichsoni WOLL., Col. Hesperid. (1876), 247.
fennicus SAHLB., En. Col. Brach. Fenn. (1876), 38.
idae SHARP, Trans. Ent. Soc. London (1874), 75.
longipennis ERICHS., Käf. Mk. Brandenb. (1837), 517; Gen. Spec. Staph. (1839), 651.
riparius GRAV., Col. Micr. Brunsv. (1802), 62.
fuscipes var. *peregrinus* ERICHS., Gen. Spec. Staph. (1839), 656; KRAATZ, Arch. Naturgesch. (1859), 25, 151.
breviceps BERNH., Deutsche Ent. Zeitschr. (1902), 37.
 LUZON, Manila (1366, *Schultze*).
intermedius BOHEM., Res. Eugen. (1858), 32; FAUV., Rev. d'Ent. (1886), 5, 147.
philippinus BERNH.,† Phil. Journ. Sci., Sec. D (1912), 7, 250.
 LUZON, Rizal, Montalban Gorge (5458, *Banks*); Benguet, Trinidad (8219, *Banks*).

Genus **ASTENUS** Stephens

- indicus* KRAATZ, Arch. Naturgesch. (1859), 25, 148.
oculatus SHARP, Trans. Ent. Soc. London (1874), 72.
pallidulus WOLL., Cat. Canar. (1864), 591.
parviceps RAGUSA, Nat. Sci. (1891), 10, 239.

Genus **MEDON** StephensSubgenus **Charichirus** Sharp

- philippinus* BERNH., Phil. Journ. Sci., Sec. D (1912), 7, 250.
 LUZON, Rizal, Montalban Gorge (5576, 5644, *Banks*).

Genus **SCOPAEUS** Erichson

- dilutus* MOTSCH., Bull. Mosc. (1858), 31, 642.
suturalis KRAATZ, Arch. Naturgesch. (1859), 25, 130.
montalbanensis BERNH., Phil. Journ. Sci., Sec. D (1912), 7, 251.
 LUZON, Rizal, Montalban Gorge (*Schultze*).
nitidulus MOTSCH., Bull. Mosc. (1858), 31, 643.
subfasciatus KRAATZ, Arch. Naturgesch. (1859), 25, 129; FAUV., Mitt. Nat. Mus. Hamb. (1905), 82.

Genus **LATHROBIUM** Gravenhorst

- caffrum* BOHEM., Ins. Caffr. (1848), 1, 285.
pulchellum KRAATZ, Arch. Naturgesch. (1859), 25, 116; FAUV., Rev. d'Ent. (1903), 22, 154.
prolatum FAUV., Rev. d'Ent. (1886), 5, 148; Ann. Soc. Ent. France (1886), 180.

- unicolor* KRAATZ, Arch. Naturgesch. (1859), 25, 117.
pallens GEMM. et HAROLD, Cat. Col. (1868), 2, 611.
seriatum SHARP, Ann. & Mag. Nat. Hist. (1889), 3, 259; FAUV.,
 Rev. d'Ent. (1904), 23, 69.
testaceum MOSTCH., Bull. Mosc. (1858), 31, 646.
 LUZON, Manila (5031, *Banks*).

Genus **DOLICAON** Laporte

- sparsiventris* FAUV., Rev. d'Ent. (1886), 5, 148; Ann. Soc. Ent. France
 (1886), 179.

Genus **CRYPTOBIUM** Mannerheim

- abdominale* MOTSCH.,† Bull. Mosc. (1858), 31, 651; EPPELSH., Deutsche Ent.
 Zeitschr. (1895), 402.
pygiale KRAATZ, Arch. Naturgesch. (1859), 25, 121.
suturale MOTSCH., Bull. Mosc. (1858), 31, 652.
abdominale var. *acherontium* EPPELSH., Deutsche Ent. Zeitschr. (1895),
 402.
abdominale var. *discoldeum* EPPELSH., Deutsche Ent. Zeitschr. (1895),
 402.
abdominale var. *indicum* KRAATZ, Arch. Naturgesch. (1859), 25, 121.
abdominale var. *rufipenne* MOTSCH., Bull. Mosc. (1858), 31, 651.
 LUZON, Manila (3114, *Banks*).
banksi BERNH.,† Phil. Journ. Sci., Sec. D (1912), 7, 252.
 LUZON, Rizal, Montalban Gorge (5645, *Banks*).
fossigerum KRAATZ, Arch. Naturgesch. (1859), 25, 120.

STAPHYLININÆ

Genus **PACHYCORYNUS** Motschulsky

- dimidiatus* MOTSCH., Bull. Mosc. (1858), 31, 205, Pl. 1, fig. n.
ceylanensis KRAATZ, Arch. Naturgesch. (1859), 25, 101, Pl. 2,
 fig. 6a-c.
cinctus WALK., Ann. & Mag. Nat. Hist. (1858), 2, 205.
 LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **EULISSUS** Mannerheim

- anachoreta* ERICHS., Gen. Spec. Staph. (1840), 316; KRAATZ, Arch. Natur-
 gesch. (1859), 25, 102.
hongkongensis REDTB., Reise Novara (1867), 2, 28.
morio MOTSCH., Bull. Mosc. (1858), 31, (3), 207.
 LUZON, Laguna, Los Baños (17871, *Baker*).

Genus **THYREOCEPHALUS** Guérin

- aebertisi* FAUV., Ann. Mus. Genova (1877), 12, 246.
 LUZON.
philippinus BERNH., Phil. Journ. Sci., Sec. D (1912), 7, 252.
 LUZON, Rizal, Montalban Gorge (5643, *Banks*).

Genus **DIOCHUS** Erichson

- conicollis* MOTSCH., Bull. Mosc. (1858), 31, (2), 658, Pl. 1, fig. k; Etud. Ent. (1859), 8, 163; Wien. Ent. Monatsschr. (1861), 5, 198.
major KRAATZ, Arch. Naturgesch. (1859), 25, 113.

Genus **NEOBISNIUS** Ganglbauer

- praelongus* GEMM. et HAROLD, Cat. Col. (1868), 2, 591.
longulus KRAATZ, Arch. Naturgesch. (1859), 25, 99.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **PHILONTHUS** Curtis

- acroleucus* KRAATZ, Arch. Naturgesch. (1859), 25, 91.
LUZON, Laguna, Los Baños (*coll. Baker*).
- aeneipennis* BOHEM., Res. Eugen. (1858), 30.
erythropus KRAATZ, Arch. Naturgesch. (1859), 25, 88.
lewisius SHARP, Trans. Ent. Soc. London (1874), 42; FAUV., Rev. d'Ent. (1903), 22, 159.
- cinctipennis* FAUV., En. Gallo-rhen. 3, Cat. Syst. Staph. (1875), 30; Bull. Soc. Linn. Norm. (1877), 2, 123; Rev. d'Ent. (1886), 5, 150; (1904), 23, 59.
- circumductus* FAUV., Rev. d'Ent. (1895), 14, 263.
- convexus* BERNH., Phil. Journ. Sci., Sec. D (1912), 7, 253.
LUZON.
- flavipes* KRAATZ, Arch. Naturgesch. (1859), 25, 88.
- longicornis* STEPH., Ill. Brit. Col. (1832), 5, 237; GANGLB., Käf. Mitt.-Eur. (1895), 2, 454.
LUZON, Laguna, Los Baños (*coll. Baker*).
- notabilis* KRAATZ, Arch. Naturgesch. (1859), 25, 79.
- paederoides* MOTSCH., Bull. Mosc. (1858), 31, 662.
bellus KRAATZ, Arch. Naturgesch. (1859), 25, 83.
supra KRAATZ, Arch. Naturgesch. (1859), 25, 83.
- quisquiliarius* GYLL., Ins. Suec. (1810), 335; GANGLB., Käf. Mitt.-Eur. (1895), 2, 455.
- thermarum* AUBÉ, Ann. Soc. Ent. France (1850), 316; GANGLB., Käf. Mitt.-Eur. (1895), 2, 460.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **HESPERUS** Fauvel

- phaenomenalis* BERNH., Verh. Zool. Bot. Ges. Wien (1914), 102.
LUZON, Laguna, Los Baños (*coll. Baker*).
- roepkei* BERNH., Ent. Blätter (1911), 7, 89.

Genus **AMICHROTUS** Sharp

- merritti* BERNH., Phil. Journ. Sci., Sec. D (1912), 7, 253.
LUZON, Laguna, Mount Banahao (8075, *Merritt*).

Genus **BELONUCHUS** Nordmann

nullicedo DOHRN, Stett. Ent. Zeitg. (1892), 53, 74.

Genus **STAPHYLINUS** Linnæus

chalceus BERNH., Ent. Blätter (1911), 7, 87.

luzonicus FAUV., Ann. Soc. Ent. France (1886), 149.

Genus **ALEOCHARA** Gravenhorst

asiatica KRAATZ, Arch. Naturgesch. (1859), 25, 15; FAUV., Ann. Mus. Civ. Genova (1877), 12, 306; SHARP, Ann. & Mag. Nat. Hist. (1888), 2, 281.

japonica SHARP, Trans. Ent. Soc. London (1874), 8.

philippina BERNH., Phil. Journ. Sci., Sec. D (1912), 7, 254.

LUZON, Laguna, Mount Banahao (7202, *Banks*).

postica WALK., Ann. & Mag. Nat. Hist. (1853), 2, 205.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **HOPLANDRIA** Kraatz

philippina BERNH., Verh. Zool. Bot. Ges. Wien (1914), 105.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **ZYRAS** Stephens

compressicornis FAUV., Rev. d'Ent. (1905), 143.

Genus **ATHETA** Thomson

platygaster KRAATZ, Arch. Naturgesch. (1859), 25, 33.

LUZON, Laguna, Los Baños (17868, *Baker*).

Genus **COENONICA** Kraatz

bakeri BERNH., Verh. Zool. Bot. Ges. Wien (1914), 104.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **COPROPORUS** Kraatz

atomus KRAATZ, Arch. Naturgesch. (1859), 25, 58.

LUZON, Laguna, Los Baños (17363, *Baker*).

minutissimus BERNH., Verh. Zool. Bot. Ges. Wien (1914), 103.

LUZON, Laguna, Los Baños (17861, *Baker*).

subdepressus KRAATZ, Arch. Naturgesch. (1859), 25, 57.

LUZON, Laguna, Los Baños (17862, *Baker*).

Genus **TANYGNATHINUS** Reitter

ruficollis KRAATZ, Arch. Naturgesch. (1859), 25, 64.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **MYLLAENA** Erichson

apicalis KRAATZ, Arch. Naturgesch. (1859), 25, 51.

LUZON, Laguna, Los Baños (*coll. Baker*).

PSELAPHIDÆ

Genus *INTEMPUS* Reitter

euplectidum REITTER, Verh. N. V. Brünn (1881), 20, 209.

punctatissimus REITTER, Deutsche Ent. Zeitschr. (1885), 337, Pl. 3, fig. 27.
LUZON.

Genus *THESIASTES* Casey

crassipes RAFFR., Ann. Soc. Ent. France (1891), 475; Rev. d'Ent. (1896), 253.
LUZON, Bulacan.

Genus *BATRISODES* Reitter

cavicola RAFFR., Ann. Soc. Ent. France (1891), 476, Pl. 14, fig. 1.
LUZON, Rizal, Montalban, San Mateo Cave.⁵

verticinus RAFFR., Ann. Soc. Ent. France (1891), 477.
LUZON, Rizal, Montalban, San Mateo Cave.

Genus *BATRISOCENUS* Raffray

clavipes RAFFR., Ann. Soc. Ent. France (1891), 480, Pl. 14, fig. 3.
LUZON, Manila.

hamatipes RAFFR., Ann. Soc. Ent. France (1891), 480, Pl. 14, fig. 5.
LUZON, Manila.

squamiceps RAFFR., Ann. Soc. Ent. France (1891), 478, Pl. 14, fig. 2.
LUZON, Manila.

tumidipes RAFFR., Ann. Soc. Ent. France (1891), 479, Pl. 14, fig. 4.
LUZON, Manila.

Genus *BATRAXIS* Reitter

nitidula RAFFR., Phil. Journ. Sci., Sec. D (1914), 9, 452.
LUZON, Laguna, Los Baños (*coll. Baker*).

obesa RAFFR., Ann. Soc. Ent. France (1904), 120.

pubescens RAFFR., Phil. Journ. Sci., Sec. D (1914), 9, 452.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus *REICHENBACHIA* Leach

dama RAFFR., Ann. Soc. Ent. France (1891), 492, Pl. 14, fig. 17.
LUZON, Bulacan, Quingua.

laticollis RAFFR., Ann. Soc. Ent. France (1891), 491, Pl. 14, figs. 15, 15a.
LUZON, Rizal, Antipolo.

manillensis RAFFR., Ann. Soc. Ent. France (1891), 490, Pl. 14, figs. 14, 14a.
LUZON, Rizal, Antipolo.

rufa SCHMIDT-GOEBEL, Beitr. Mon. Psel. (1838), 6, Pl. 1, fig. 14; RAFFR.,
Ann. Soc. Ent. France (1891), 486, Pl. 14, figs. 8, 8a.
LUZON, Manila.

⁵ San Mateo Cave should properly be called Montalban Cave, since its location is in Montalban Gorge.

Genus **ANASIS** Raffray

- laevicollis* RAFFR., Ann. Soc. Ent. France (1891), 493, Pl. 14, fig. 21.
LUZON, Rizal, Antipolo.

Genus **RYBAXIS** Saulcy

- gladiator* RAFFR., Ann. Soc. Ent. France (1891), 481.
LUZON, Rizal, Antipolo.
simoniana RAFFR., Ann. Soc. Ent. France (1891), 482.
LUZON, Rizal, Antipolo.

Genus **TYRAPHUS** Sharp

- baeri* RAFFR., Ann. Soc. Ent. France (1891), 493.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **CENTROPTHALMUS** Schmidt-Goebel

- femoralis* REITTER, Verh. Zool. Bot. Ges. Wien (1882), 284.
LUZON, Manila.
philippinensis RAFFR., Phil. Journ. Sci., Sec. D (1914), 9, 454.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **RAPHITREUS** Sharp

- bakeri* RAFFR., Phil. Journ. Sci., Sec. D (1914), 9, 455.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **DACNOTILLUS** Raffray

- simoni* RAFFR., Ann. Soc. Ent. France (1891), 495.
LUZON, Rizal, Montalban Cave.

SCYDMAENIDÆ

Genus **CYRTOSCYDMUS** Motschulsky

- antipolensis* SCHAUF., Ann. Soc. Ent. France (1891), 335.
LUZON, Rizal, Antipolo.
fundaebraccatus SCHAUF., Ann. Soc. Ent. France (1891), 333.
LUZON, Rizal, Antipolo.
manillae SCHAUF., Ann. Soc. Ent. France (1891), 335.
LUZON, Manila.

PAUSSIDÆ

Genus **PROTOPAUSSUS** Gestro

- bakeri* HELLER, Wien. Ent. Zeitg. (1914), 33, 203.
LUZON, Laguna, Mount Maquilung (*coll. Baker*).

SILPHIDÆ

Genus **SILPHA** Linnæus

- viridis* MOTSCH., Bull. Mosc. (1861), 2, 628.
coelestis DOHRN, Stett. Ent. Zeitg. (1875), 81.
superba KRAATZ, Deutsche Ent. Zeitschr. (1876), 374.
MINDORO, Mount Halcon (6221, *Merrill*).

Genus **NECROPHORUS** Fabricius

ocellatus FAIRM., † Ann. Soc. Ent. France (1878), 90.

LUZON, Lepanto, Mount Data (10430, *Curran*); Benguet, Pauai (11197, *McGregor*; 17049, *Wileman*).

Genus **DIAMESUS** Hope

osculans VIGORS, Zool. Journ. (1825), 1, 537, Pl. 20, fig. 2.

bifasciatus SPIN., Dej. Cat., 3 ed. (1837), 132.

LUZON, Bataan, Lamao (8878, *Ledyard*).

SCAPHIDIIDÆ

Genus **SCAPHIDIUM** Olivier

philippense REITT., Verh. N. V. Brünn (1880), 18, 39.

LUZON, Bataan, Lamao (6558, *Curran*).

Genus **SCAPHOSOMA** Leach

philippinense R. OBERTH., Coleop. Novit. (1841), 1, 14.

LUZON.

HISTERIDÆ

Genus **HOLELEPTA** Paykull

elongata ERICHS., † in Klug, Jahrb. Ins. (1834), 92; MARS., Ann. Soc. Ent. France (1853), 190, Pl. 4, fig. 31.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

indica ERICHS., † in Klug, Jahrb. Ins. (1834), 90; MARS., Ann. Soc. Ent. France (1853), 152, Pl. 4, fig. 10.

aequa LEWIS, Ann. & Mag. Nat. Hist. (1885), 16, 204.

batchiana MARS., Ann. Soc. Ent. France (1860), 588, Pl. 11, fig. 2.

MINDANAO, Zamboanga (13632, *Zschokke*).

manillensis MARS., Ann. Soc. Ent. France (1853), 145, Pl. 4, fig. 3.

LUZON, Manila.

Genus **TRYPANAEUS** EschscholtzSubgenus **Trypeticus** Marseul

longicollis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 20, fig. 1.

LUZON, Laguna, Los Baños (*Baker*).

Genus **PLAESIUS** Erichson

javanus ERICHS., † in Klug, Jahrb. Ins. (1834), 102, Pl. 2, fig. 1; MARS., Ann. Soc. Ent. France (1853), 226, Pl. 6, fig. 2.

PALAWAN, Iwahig (13565, *Lamb*).

Genus **APOBLETES** Marseul

feriatus LEWIS, Ann. & Mag. Nat. Hist. (1902), 10, 224; BICKH., Phil. Journ. Sci., Sec. D (1914), 9, 423.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

- fictitus* LEWIS, Ann. & Mag. Nat. Hist. (1885), 16, 206.
defficile SCHM., Ent. Nachr. (1889), 15, 334.
platysomoides LEWIS, Ann. & Mag. Nat. Hist. (1891), 8, 382.
semperi LEWIS, Ann. & Mag. Nat. Hist. (1891), 8, 382.
tener MARS., Ann. Soc. Ent. France (1860), 859, Pl. 15, fig. 5; BICKH.,
 Phil. Journ. Sci., Sec. D (1914), 9, 423.
 LUZON, Laguna, Los Baños (*coll. Baker*).

Genus LIOPYGUS Lewis

- diopsipygus* MARS., Ann. Mus. Civ. Genova (1879), 14, 259; BICKH., Phil.
 Journ. Sci., Sec. D (1914), 9, 426.
 LUZON, Laguna, Los Baños (*coll. Baker*).

Genus PLATYSOMA Leach

Subgenus *Platylister* Lewis

- abruptum* ERICHS.,† in Klug, Jahrb. Ins. (1834), 1, 109; MARS., Ann. Soc.
 Ent. France (1853), 257, Pl. 7, fig. 2; (1861), 142, Pl. 3, fig. 2.
gorhami LEWIS, Ann. & Mag. Nat. Hist. (1889), 3, 278; (1893),
 11, 418.
 LUZON, Laguna, Los Baños (*coll. Baker*): NEGROS, Mount Canlaon
 (12915, *Banks*).
charrali MARS., Ann. Soc. Ent. France (1861), 146, Pl. 3, fig. 6; BICKH.,
 Phil. Journ. Sci., Sec. D (1914), 9, 424.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).
corticinus BICKH., Phil. Journ. Sci., Sec. D (1914), 9, 424.
 LUZON, Laguna, Los Baños (*coll. Baker*).
humilis ERICHS.,† in Klug, Jahrb. Ins. (1834), 109; MARS., Ann. Soc.
 Ent. France (1853), 261, Pl. 7, fig. 6.
 NEGROS, Occidental Negros, Mailum (12244, *Banks*).
lucifugus MARS., Ann. Soc. Ent. France (1853), 259, Pl. 7, fig. 4.
 PALAWAN, Iwahig (12246, *Weber*).
ovatum ERICHS.,† in Klug, Jahrb. Ins. (1834), 1, 108; MARS., Ann. Soc.
 Ent. France (1853), 257, Pl. 7, fig. 1; BICKH., Phil. Journ. Sci.,
 Sec. D (1914), 9, 425.
 LUZON, Laguna, Los Baños (*coll. Baker*); Tayabas, Tiaong (*A. Worm*).
striatiderum MARS.,† Ann. Soc. Ent. France (1853), 270, Pl. 7, fig. 15;
 BICKH., Phil. Journ. Sci., Sec. D (1914), 9, 425.
 LUZON, Laguna, Los Baños (*coll. Baker*); Rizal, Montalban (*Schultze*).

Subgenus *Platysoma* Leach

- bifossopygum* MARS., Ann. Soc. Ent. Belg. (1870), 13, 69.
 LUZON.
confucci MARS.,† Ann. Soc. Ent. France (1857), 404, Pl. 11, fig. 9; SCHM.,
 Notes Leyden Mus. (1890), 12, 10.
 LUZON, Laguna, Magdalena (12243, *Schultze*): PALAWAN, Bacuit
 (12250, *Weber*).

luzonicum ERICHS.,† in Klug, Jahrb. Ins. (1834), 1, 111; MARS., Ann. Soc. Ent. France (1853), 265, Pl. 7, fig. 10.

LUZON, Laguna, Los Baños (*coll. Baker*).

uniforme LEWIS,† Ann. & Mag. Nat. Hist. (1894), 14, 176; BICKH., Phil. Journ. Sci., Sec. D (1914), 9, 426.

LUZON, Laguna, Los Baños (*coll. Baker*).

Subgenus *Cylistosoma* Lewis

dufali MARS., Abeille I (1864), 310; BICKH., Phil. Journ. Sci., Sec. D (1914), 9, 426.

scitulum LEWIS, Ann. & Mag. Nat. Hist. (1889), 3, 280.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus *HISTER* Linnæus

Subgenus *Santalus* Lewis

philippinarum BICKH.,† Phil. Journ. Sci., Sec. D (1914), 9, 426.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Subgenus *Hister* Linnæus

faldermanni MARS.,† Ann. Soc. Ent. France (1861), 529, Pl. 13, fig. 20.

LUZON, Rizal, Montalban Gorge (5559, *Banks*).

Subgenus *Atholus* Thomson

bakeri BICKH., Phil. Journ. Sci., Sec. D (1914), 9, 428.

LUZON, Laguna, Los Baños (*coll. Baker*).

philippinensis MARS., Ann. Soc. Ent. France (1854), 547, Pl. 9, fig. 118.

Genus *EPIERUS* Erichson

nasicornis BICKH., Phil. Journ. Sci., Sec. D (1914), 9, 429, Pl. 1.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus *PAROMALUS* Erichson

oceanitis MARS.,† Ann. Soc. Ent. France (1855), 110, Pl. 8, No. 23, fig. 4.

LUZON, Laguna, Magdalena (1778, *Schultze*).

Genus *TRIBALUS* Erichson

catenarius LEWIS, Ann. & Mag. Nat. Hist. (1889), 3, 285.

laevidorsis LEWIS, Ann. & Mag. Nat. Hist. (1908), 2, 152.

LUZON.

Genus *EPIECHINUS* Lewis

lagunae HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 21, fig. 2.

LUZON, Laguna, Los Baños (*Baker*).

Genus *SAPRINUS* Erichson

auricollis MARS.,† Ann. Soc. Ent. France (1855), 390, Pl. 16, fig. 31.

LUZON, Manila (1582, *Schultze*).

varians SCHM.,† Ent. Nachr. (1890), 16, 55; LEWIS, Ann. & Mag. Nat. Hist. (1910), 6, 58.

TUBATAHA REEF, Sulu Sea (17578, *Schultze*).

TEMNOCHILIDÆ

TEMNOCHILINÆ

Genus MELAMBIA Erichson

cordicollis REITT.,† Verh. N. V. Brünn (1878), 14, 25, Pl. 1, fig. 16.

TICAO (1467, *McGregor*): PALAWAN, Taytay (17179, *Schultze*).

Genus TENEBROIDES Piller

mauritanicus LINN.,*† Syst. Nat., ed. 10 (1758), 1, 417; OLIV., Ent. (1790), 2, Pl. 1, fig. 20, b; SCHÖNH., Syn. Ins. (1806), 1, 155; LACORD., Gen. Col. (1854), 2, 336.

LUZON, Manila (1824, 11427, *Schultze*; 16386, *Jones*).

OSTOMINÆ

Genus NEASPIS Pascoe

squamata ESCHSCH., Entom. (1822), 47.

LUZON.

Genus GAURAMBE Thomson

pubescens ESCHSCH., Entom. (1822), 49.

LUZON.

Genus LOPHOCATERES Olliff

pusillus KLUG,*† Abh. Akad. d. Wissensch. Berlin (1832), 159; CHITTEND., Bull. U. S. Dept. Agr., Bur. Ent. (1911), No. 96, pt. I, 14, fig. 2.

africanus MOTSCH., Bull. Soc. Nat. Mosc. (1863), 2, 508.

yvani ALLIB., Rev. Zool. (1847), 12; REITT., Verh. Nat. Ver. Brünn (1876), 14, 63; REY, Bull. Soc. Ent. France (1888), 38.

NITIDULIDÆ

CARPOPHILINÆ

Genus CARPOPHILUS Stephens

dimidiatus FABR., Ent. Syst. (1792), 1, 261; MURRAY, Trans. Linn. Soc. London (1864), 24, 379.

LUZON, Laguna, Los Baños (*coll. Baker*).

obsoletus ERICH., Germ. Zeitschr. (1843), 4, 259; MURRAY, Trans. Linn. Soc. London (1864), 24, 368.

cribellatus MOTSCH., Etud. Ent. (1858), 7, 41.

PALAWAN.

NITIDULINÆ

Genus SOMAPHORUS Murray

ferrugineus MURRAY, Trans. Linn. Soc. London (1864), 24, 408, Pl. 36, fig. 7.

Genus TRIACANUS Erichson

apicalis ERICH., Nov. Act. Leop. Car., Suppl. (1834), 16, 234, Pl. 47, fig. 3.

CUCUJIDÆ

Genus *PASSANDRA* Dalman

blanchardi GROUV., Bull. Soc. Ent. France (1876), 217.

Genus *ANCISTRIA* Erichson

cylindrica WESTW.,† Cab. Orient. Ent. (1848), 85, Pl. 41, fig. 6, a-e.
LUZON, Rizal, Montalban Gorge (5329, *Banks*).

Genus *HECTARTHURUM* Newman

heros FABR., Syst. Eleuth. (1801), 2, 92; NEWM., Ann. Nat. Hist. (1839), 394.

bistriatum CAST., Hist. Nat. (1840), 2, 384.

brevifossum NEWM., Ann. Nat. Hist. (1839), 392; WATERH., Ent. Month. Mag. (1876), 13, 118.

LUZON, Laguna, Magdalena (1754, *Schultze*).

latum GROUV., Bull. Ann. Soc. Ent. France (1874), 29; (1876), 488, Pl. 8, fig. 2.

Genus *DENDROPHAGUS* Schönherr

serratus SMITH, Col. Mus. Brit. (1851), 1, 12.

Genus *PSAMMOECUS* Latreille

simonis GROUV., Ann. Soc. Ent. France (1892), 287.

Genus *EMPORIUS* Ganglbauer

longicornis GROUV., Ann. Soc. Ent. France (1892), 285.
LUZON.

Genus *SILVANOPSIS* Grouvelle

simonis GROUV., Ann. Soc. Ent. France (1892), 286.
LUZON, Manila.

Genus *SILVANUS* Latreille

surinamensis LINN.,*† Syst. Nat., ed. 10 (1758), 1, 357.

sexdentatus FABR., Ent. Syst. (1792), 1, 232.

frumentarius FABR., Ent. Syst. (1792), 1, 496.

LUZON, Manila (13456, *Banks*).

unidentatus OLIV.,† Ent. (1790), 2, 12, Pl. 1, fig. 4; FABR., Ent. Syst. (1792), 1, 232.

LUZON, Manila (4959, *Banks*).

Genus *INOPECTUS* Reitter

beraneki REITT., Deutsche Ent. Zeitschr. (1884), 263.

Genus *NAUSIBIUS* Redtenbacher

dentatus MARSH., Ent. Brit. (1802), 1, 108; REDTENB., Fauna Aust. (1858), 2, 999; JACQU., Duv. Gen. Col. (1858), 2, Pl. 50, fig. 250.

intermedius SMITH, Cat. Col. Brit. Mus. (1851), 1, 16.

parallelus WLK., Ann. Nat. Hist. (1858), 3, 206.

EROTYLIDÆ

LANGURIINÆ

Genus METABELUS Gorham

borrei FOWLER, Bull. Ann. Soc. Ent. Belg. (1886), 107.

Genus NEOLANGURIA Gorham

filiformis FABR., Syst. Eleuth. (1801), 1, 152.

testacea MACLEAY, Ann. Javan. (1825), 45.

rufotestacea MOTSCH., Schrenk's Reise und Forsch. Amur-Lande (1860), 2, 242.

nigripes CROTCH, Ent. Month. Mag. (1873), 9, 184.

LUZON.

Genus GLYPHILANGURIA Fowler

longipes FOWLER, Bull. Ann. Soc. Ent. Belg. (1886), 30, 111.

LUZON.

Genus COENOLANGURIA Gorham

acuminata FOWLER, Bull. Ann. Soc. Ent. Belg. (1886), 30, 110.

LEYTE.

Genus CALLILANGURIA Crotch

elegantula HAROLD, Mitt. Münch. Ent. Ver. (1879), 3, 64.

NEGROS, Occidental Negros, Bago (918, *Banks*).

eximia FOWLER, Trans. Ent. Soc. London (1885), 383.

flaviventris FOWLER, Bull. Ann. Soc. Ent. Belg. (1886), 30, 108.

luzonica CROTCH,† Cist. Ent. (1876), 13, 381; HAROLD, Mitt. Münch. Ent. Ver. (1879), 3, 63.

LUZON, Rizal, Montalban Gorge (7660, *Schultze*): NEGROS, Occidental Negros, Mount Canlaon (6851, *Banks*).

stenosoma HAROLD, Mitt. Münch. Ent. Ver. (1879), 3, 64.

LUZON, Bataan, Lamao (1109, *Merrill*).

Genus ANADASTUS Gorham

chapuisi FOWLER,† Bull. Ann. Soc. Ent. Belg. (1886), 30, 109.

LUZON, Rizal, Montalban Gorge (5669, *Banks*): NEGROS, Occidental Negros, Bago (906, *Banks*).

convexicollis BOHEM., Res. Eug. Ent. (1860), 212.

LUZON, Manila.

elegans FOWLER, Bull. Ann. Soc. Ent. Belg. (1886), 30, 109.

MINDANAO.

melanosternus HAROLD,† Mitt. Münch. Ent. Ver. (1879), 3, 82.

LUZON, Rizal, Montalban Gorge (5336, *Banks*).

Genus STENODASTUS Gorham

humilis FOWLER, Bull. Ann. Soc. Ent. Belg. (1886), 30, 110.

LUZON, Manila (2469, *Banks*).

EROTYLINÆ

Genus AULACCHILUS Lacordaire

agaboides GORH., Proc. Zool. Soc. London (1883), 83, Pl. 18, fig. 10.

agaboides var. *furciferus* GORH., Proc. Zool. Soc. London (1883), 83, Pl. 18, fig. 11.

LUZON: MINDANAO.

humeralis WATERH., Ann. & Mag. Nat. Hist. (1884), V, 13, 372.

inclutus GORH., Proc. Zool. Soc. London (1883), 83.

PANAON.

medio-coeruleus BEDEL, Ann. Soc. Ent. France (1871), 285.

MINDANAO.

propingus LACORD., Mon. Erotyl. (1842), 248; BEDEL, Ann. Soc. Ent. France (1871), 277.

LUZON, Manila.

quadrisingatus GUÉRIN,† Rev. Zool. (1841), 156; LACORD., Mon. Erotyl. (1842), 248.

TICAO (1472, *McGregor*): NEGROS, Occidental Negros, Bago (8673, *Banks*).

Genus ENCAUSTES Lacordaire

cinctipes LACORD., Mon. Erotyl. (1842), 41.

LUZON, Manila.

crotchi GORH., Proc. Zool. Soc. London (1883), 76, Pl. 18, fig. 7.

BOHOL.

palawanica HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 159, fig. 12.

PALAWAN, Iwahig (13213, *Lamb*).

tagala HELLER, Phil. Journ. Sci., Sec. D (1913), 8, 160, fig. 13.

LUZON, Pampanga (6482, *Williamson*).

Genus MICRENCAUSTES Crotch

octopustulata GORH., Proc. Zool. Soc. London (1883), 82, Pl. 18, fig. 4.

MINDANAO.

Genus HYBOSOMA Gorham

hydropicum GORH., Proc. Zool. Soc. London (1883), 77, Pl. 18, fig. 6.

BOHOL (6727, *McGregor*).

striatum GORH., Proc. Zool. Soc. London (1883), 77.

MINDANAO.

tetrasticum GORH., Proc. Zool. Soc. London (1883), 78.

LEYTE.

Genus TRIPLATOMA Westwood

exornata HELLER, Phil. Journ. Sci., Sec. D (1913), 8, 160, fig. 14.

TAWI TAWI (12565, *Foxworthy*).

philippinensis GORH., Proc. Zool. Soc. London (1883), 79, Pl. 18, fig. 3.

MINDANAO, Agusan River (12506, *Celestino*).

siva GORH., Proc. Zool. Soc. London (1883), 79.
MINDANAO.

Genus *EPISCAPHA* Lacordaire

antennata CROTCH, Cist. Ent. (1876), 13, 21.
LUZON.

quadrinacula WIEDEM., † Zool. Mag. (1823), 2, 131; LACORD., Mon. Erotyl. (1842), 53.

LUZON, Benguet, Irisan (1576, *McGregor*): PALAWAN, Iwahig (5138, *Celestino*): MINDORO, Mount Halcon (6366, *Merrill*): MINDANAO, Camp Keithley (6892, *Clemens*): SIBUYAN (7669, *McGregor*).

semperi GORH., Proc. Zool. Soc. London (1883), 81.
MINDANAO.

vestita LACORD., † Mon. Erotyl. (1842), 50.
LUZON, Bataan, Lamao (7861, *Schultze*): NEGROS, Occidental Negros, Mount Canlaon (6862, *Banks*).

Genus *EPISCAPHULA* Crotch

philippinarum LACORD., † Mon. Erotyl. (1842), 55.
CEBU, Toledo (6728, *McGregor*).

quadrinaculatus GUÉR., Rev. Zool. (1841), 156; LACORD., Mon. Erotyl. (1842), 248.
LUZON.

COLYDIIDÆ

Genus *TRACHYPHOLIS* Erichson

hispidula WEBER, Obs. Ent. (1801), 1, 38; FABR., Syst. Eleuth. (1801), 1, 119.
bowringi WOLL., Journ. Ent. (1862), 1, 372.
deyrollei REITT., Stett. Ent. Zeitg. (1877), 328.
hispidula var. *aequalis* PASC., Journ. Ent. (1863), 2, 138.

Genus *COLOBICUS* Latreille

parilis PASC., Journ. Ent. (1860), 1, 202.
PALAWAN.

DISCOLOMIDÆ

Genus *PARMASCHEMA* Heller

nodimargo HELLER, † Phil. Journ. Sci., Sec. D (1912), 7, 107, fig. 1.
LUZON, Laguna, Lazaan (11488, *Banks*).

ENDOMYCHIDÆ

TROCHOIDEINÆ

Genus *TROCHOIDEUS* Westwood

desjardinsi GUÉR., Rev. et Mag. Zool. (1838), 22; WESTW., Trans. Ent. Soc. London (1838), 2, 97; Trans. Linn. Soc. London (1845), 19, 45;
GERST., Mon. Endomych. (1858), 385; COGUER., Ann. Soc. Ent. France (1859), 257, Pl. 6, fig. 2.

ENDOMYCHINÆ

Genus AMPHISTERNUS Germar

sanguinolentus GORH., Trans. Ent. Soc. London (1875), 311.

Genus SPATHOMELES Gerstäcker

darwinista DOHRN, Stett. Ent. Zeitg. (1873), 322.

pyramidalis GORH., Endomych. Recit. (1873), 31.

MINDANAO, Agusan River (12505, *Celestino*).

Genus EUMORPHUS Weber

convexicollis GERST.,† Wieg. Arch. (1857), 23, 1, 228; Mon. Endomych. (1858), 1, 113.

confusus GUÉR., Arch. Ent. (1857), 1, 254, Pl. 13, fig. 8; Rev. et Mag. Zool. (1858), 10, 27.

LUZON, Bataan, Lamao (6583, *Cuzner*); Ambos Camarines (9092, *Curran*): MINDANAO, Port Banga (7812, *Hutchinson*): PALAWAN, Iwahig (10722, *Schultze*).

cyanescens GERST.,† Wieg. Arch. (1857), 23, 226; Mon. Endomych. (1858), 1, 110, Pl. 2, fig. 5.

thomsoni GUÉR., Rev. et Mag. Zool. (1858), 10, 16.

LUZON, Cagayan, Aparri (10587, *Curran*).

murrayi GORH., Trans. Ent. Soc. London (1874), 437.

quadriguttatus ILLIG.,† Wiedem. Arch. Zool. (1800), 1, 2, 124, Pl. 1, fig. 4; GERST., Mon. Endomych. (1858), 1, 110.

MINDANAO, Zamboanga (15847, *Merrill*).

quadripustulatus FRIV.,† Termesz. Fuzetek (1883), 6, 126.

PALAWAN, Iwahig (10723, *Schultze*).

subguttatus GERST.,† Arch. Naturgesch. (1857), 23, 1, 229; Mon. Endomych. (1858), 1, 122.

PALAWAN, Iwahig (16365, *Weber*).

sybarita GERST., Arch. Naturgesch. (1857), 23, 1, 229; Mon. Endomych. (1858), 1, 118.

LUZON, Laguna, Los Baños (*coll. Baker*).

tetraspilotes HOPE,† Griffith's Animal Kingd. (1832), 2, 786, Pl. 60, fig. 6, Pl. 75, fig. 6; GERST., Arch. Naturgesch. (1857), 23, 1, 226; Mon. Endomych. (1858), 1, 103.

dehaani GUÉR., Rev. et Mag. Zool. (1858), 10, 15.

PALAWAN, Iwahig (12288, *Weber*), Mount Salacot (13022, *Lamb*).

thomsoni GORH., Endomych. Recit. (1873), 35.

LUZON.

Genus ENCYMON Gerstäcker

immaculatus MONTEZ., Ann. Soc. Agr. Lyon (1855), 7, 74; GUÉR., Rev. et Mag. Zool. (1858), 10, 25; KIRSCH, Mitt. Zool. Mus. Dresden (1877), 2, 160; FAIRM., Ann. Soc. Ent. Belg. (1883), 27, 57; CSIKI, Termesz. Fuzetek (1902), 25, 32.

gerstaeckeri DOHRN, Stett. Ent. Zeitg. (1863), 135.

angulatus GORH., Endomych. Recit. (1873), 39; Ann. Mus. Civ.

Genova (1885), 22, 520.

SIBUYAN (2014, *McGregor*).

regalis GORH., Trans. Ent. Soc. London (1874), 440; CSIKI, Termesz.

Fuzetek (1902), 25, 29.

Genus *INDALMUS* Gerstäcker

luzonicus GORH., Proc. Zool. Soc. London (1897), 462, Pl. 32, fig. 7.

LUZON.

Genus *STENOTARSOIDES* Csiki

leoninus GORH., Trans. Ent. Soc. London (1874), 444.

philippinarum GORH., Trans. Ent. Soc. London (1874), 444.

tabidus GORH., Trans. Ent. Soc. London (1874), 445.

Genus *CYCLOTOMA* Mulsant

coccinellina GERST.,† Arch. Naturgesch. (1857), 23, 242; Mon. Endomych. (1858), 366, Pl. 3, fig. 8.

testudinaria var. MULS., Mém. Acad. Lyon (1851), 1, 72.

quatuordecimpunctata WEISE, Deutsche Ent. Zeitschr. (1891), 22.

LUZON, Bulacan, Norzagaray (14222, *Foxworthy*): NEGROS, Occidental NEGROS, Bago (6317, *Banks*): MINDANAO, Agusan River (13675, *Schultze*).

Genus *THELGETRUM* Gorham

ampliatum GORH., Trans. Ent. Soc. London (1875), 314.

COCCINELLIDÆ

Genus *HARMONIA* Mulsant

octomaculata FABR.,*† Spec. Ins. (1781), 1, 97; OLIV., Ent. (1789), 1, 1010, Pl. 3, fig. 43.

octomaculata var. *philippinensis* CHEVR., Dej. Cat., 3 ed. (1837), 456.

octomaculata var. *arcuata* FABR., Mant. Ins. (1787), 1, 55; BOISD., Voy. de l'Astrolabe (1835), 591.

LUZON, Manila (1361, *Banks*; 2269, *Schultze*); Pampanga, San Juan (3038, *Williamson*): CALAYAN (624, *McGregor*).

transversalis FABR.,† Spec. Ins. (1781), 1, 97; HERBST, Käf. (1798), 5, 270, Pl. 55, fig. 9.

LUZON, Manila (*coll. Schultze*).

Genus *THEA* Mulsant

cincta FABR.,† Ent. Syst. Suppl. (1798), 77; MULS., Spec. Col. Trim. Sécur. (1851), 167.

LUZON, Manila (461, 2137, *Schultze*).

Genus *CHILOMENES* Chevrolat

sexmaculata FABR.,*† Spec. Ins. (1781), 1, 96; OLIV., Ent. (1795), 4, 998, Pl. 3, fig. 41.

LUZON, Manila (264, *Schultze*); Benguet, Trinidad (8165, *Banks*); Tayabas, Baler (11837, *McGregor*); Cagayan, Apayao (11880, *D. C. Worcester*).

Genus **SYNONYCHA** Chevrolat

grandis THUNB.,*† Nov. Ins. Spec. (1781), 12, Pl. 1, fig. 13.
imperialis HERBST, Käf. (1798), 5, 261, Pl. 55, fig. 1.
versicolor FABR., Mant. Ins. (1787), 1, 58; OLIV., Ent. (1808), 6, 1019, Pl. 3, fig. 28.
 LUZON, Manila (444, 2105, 2136, *Schultze*; 2596, 3076, 8854, *Banks*); Bataan, Lamao (7344, 7613, 7916, *Cuzner*): SIBAY (11430, *D. C. Worcester*).

Genus **DOCIMOCARIA** Crotch

cumingi MULS.,*† Spec. Col. Trim. Sécur. (1851), 236.
 LUZON, Manila (9930, *Banks*); Tayabas, Baler (11618, *D. C. Worcester*).
insignis CROTCH, Revis. Coccin. (1874), 172.
 LUZON, Manila.

Genus **CARIA** Mulsant

arrowi SICARD, Nov. Zool. (1912), 19, 253.

Genus **COELOPHORA** Mulsant

bisellata MULS.,† Spec. (1851), 400.
 LUZON, Benguet, Baguio (*Boettcher*).
calypso MULS., Mon. Coccin. (1866), 186.
oculata MULS., Spec. Col. Trim. Sécur. (1851), 385.
 LUZON, Manila.
inaequalis FABR.,*† Syst. Ent. (1775), 80; OLIV., Ent. (1808), 6, 1004, Pl. 3, fig. 32; MULS., Spec. Col. Trim. Sécur. (1851), 404; CROTCH, Revis. Coccin. (1874), 153.
mendax DEJ., Cat., 3 ed. (1837), 457.
inaequalis var. *mendica* MULS., Spec. Col. Trim. Sécur. (1851), 407.
 LUZON, Manila (3947, *Banks*; 8855, *Schultze*; 9948, *Compère*): BATAN, Batanes (7766, *McGregor*).
newporti MULS.,† Spec. Col. Trim. Sécur. (1851), 396.
 LUZON, Manila (254, *Stangl*): NEGROS, Occidental Negros, Maa (253, *Banks*): POLILLO (12478, *McGregor*).
novemmaculata FABR.,† Spec. Ins. (1781), 1, 97; Syst. Eleuth. (1801), 1, 366; OLIV., Ent. (1808), 6, 1012, Pl. 3, fig. 42; MULS., Spec. Col. Trim. Sécur. (1851), 398.
 COMIRAN (13969, *Schultze*): PALAWAN, Bintuan (16262, *Weber*).
octopunctata WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 229.
 BATAN, Batanes (7765, *McGregor*): LUZON, Manila (260, *Stangl*).
personata WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 147.
 LUZON, Manila (2678, 4743, 4786, *Banks*; 4677, 9632, *Schultze*); Benguet, Trinidad (8162, *Banks*), Baguio (11325, *F. Worcester*), Cagayan (11525, *McGregor*).

- schultzei** WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 148.
 LUZON, Manila (4863, *Banks*); Bulacan, Baliuag (15789, *Arce*).
sexguttata WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 230.
 BATAN, Batanes (7767, *McGregor*).
versipellis MULS.,† Spec. Col. Trim. Sécur. (1851), 394.
 LUZON, Manila (144, *Schultze*).
vidua MULS.,† Spec. Col. Trim. Sécur. (1851), 393.
 LUZON, Manila (752, 9438, *Schultze*; 5807, *Banks*); Bataan, Lamao (8889, *Ledyard*): TICA0 (1471, *McGregor*).

Genus **CALLINEDA** Crotch

- decussata** CROTCH, Revis. Coccin. (1874), 161.
 BALABAC.
sexdecimnotata FABR.,† Syst. Eleuth. (1801), 1, 370; OLIV., Ent. (1808), 6, 1029, Pl. 6, fig. 85; MULS., Spec. Col. Trim. Sécur. (1851), 296.
 LUZON, Benguet, Irisan (969, *McGregor*), Mount Pulog (11454, *McGregor*).

Genus **HETERONEDA** Crotch

- reticulata** FABR.,† Syst. Eleuth. (1801), 1, 362; MULS., Spec. Col. Trim. Sécur. (1851), 301; CROTCH, Revis. Coccin. (1874), 162.
billardieri CROTCH, List Coccin. (1871), 6.
 LUZON, Manila (1831, 2087, *Schultze*): BANTAYAN (11207, *Griffin*).

Genus **LEIS** Mulsant

- dimidiata** FABR.,† Spec. Ins. (1781), 1, 94; OLIV., Entom. (1808), 6, 993, Pl. 3, fig. 31.
dimidiata ab. *bicolor* HOPE, Gray's Zool. Misc. (1831), 31.
 LUZON, Manila (255, *Stangl*); Laguna, Calauang (14211, *McGregor*): MINDORO, Bongabon (8374, *Schultze*).
dunlopi CROTCH,† Revis. Coccin. (1874), 121.
 LUZON, Bataan, Lamao (6406, *Cuzner*).
manillana MULS., Mon. Coccin. (1866), 170; CROTCH, Revis. Coccin. (1874), 120.
manillana var. *atrocineta* MULS., Mon. Coccin. (1866), 175.
manillana var. *incompleta* CROTCH, Revis. Coccin. (1874), 120.
manillana var. *mniszewski* CROTCH, Revis. Coccin. (1874), 120.

LUZON: MINDANAO.

- paulinae** MULS., Mon. Coccin. (1866), 203.
 LUZON, Manila.

Genus **ALESIA** Mulsant

- discolor** FABR., Ent. Syst. Suppl. (1798), 77; MULS., Spec. Col. Trim. Sécur. (1851), 369.

Genus **VERANIA** Mulsant

- crocea** MULS.,† Mon. Coccin. (1866), 58.
 LUZON, Manila (1355, *Schultze*).

nigrilabris MULS.,† Mon. Coccin. (1866), 73.

LUZON, Manila (262, *Stangl*; 2312, *Schultze*).

Genus *SYNIA* Mulsant

melanaria MULS., Spec. Col. Trim. Sécur. (1851), 375; CROTCH, Revis. Coccin. (1874), 177.

Genus *CHILOCORUS* Leach

cerberus MULS.,† Opusc. Ent. (1876), 7, 148.

LUZON, Manila (1368, *Schultze*; 5219, 5227, 10628, *Banks*): PALAWAN, Iwahig (12365, *Weber*).

melanophthalmus MULS., Spec. Col. Trim. Sécur. (1851), 455.

ruber WEISE,† Termesz. Fuzetek (1902), 507.

LUZON, Manila (9947, *Compère*): PALAWAN, Bacuit (12328, *Weber*).

Genus *PHAENOCHILUS* Weise

monostigma WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 241.

MINDANAO, Agusan River (13686, *Schultze*).

Genus *SERANGIUM* Blackburn

spilotum WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 241.

LUZON, Manila (10244, *Compère*).

Genus *BRUMUS* Mulsant

suturalis FABR.,† Ent. Syst. Suppl. (1798), 78; MULS., Spec. Col. Trim. Sécur. (1851), 494.

LUZON, Manila (3765, 10516, *Banks*).

Genus *PLATYNASPIS* Redtenbacher

nigra WEISE,† Deutsche Ent. Zeitschr. (1879), 149.

LUZON, Manila (5027, *Banks*).

Genus *STICHOLOTIS* Crotch

banksi WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 230.

LUZON, Manila (4737, *Banks*); Rizal, Montalban Gorge (5462, *Banks*).

ovata WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 230.

LUZON, Manila (3033, *Banks*).

Genus *ASPIDIMERUS* Mulsant

tristis WEISE,*† Phil. Journ. Sci., Sec. D (1910), 5, 231.

LUZON, Manila (4903, *Banks*): PALAWAN, Bacuit (12349, *Weber*).

Genus *CRYPTOGONUS* Mulsant

orbiculus GYLH.,*† Schönh. Syn. Ins. (1807), 2, 205.

orbiculus var. *nigripennis* WEISE, Ann. Soc. Ent. Belg. (1895), 39, 137.

LUZON, Manila (2568, 4738, *Banks*; 9955, *Compère*); Bataan, Lamao (9862, *Curran*); Laguna, Los Baños (8559, *Banks*): NEGROS, Occidental Negros, Maaao (922, 1605, *Banks*): MINDANAO, Camp Keithley (7329, *Clemens*).

Genus **SCYMNUS** Kugelann

binotulatus BOHEM., Res. Eugen. (1859), 208.

Genus **PULLUS** Mulsant

brunnescens MOTSCH., Bull. Mos. (1866), 2, 425.

LUZON, Benguet, Twin Peaks (8197, *Banks*).

fuscatus BOHEM.,† Res. Eugen. (1859), 209.

LUZON, Manila (4853, 5006, *Banks*); Rizal, Montalban Gorge (5463, *Banks*).

Genus **ORTALIA** Mulsant

pusilla WEISE,† Ann. Soc. Ent. Belg. (1895), 136.

pusilla ab. **moesta** WEISE, Ann. Soc. Ent. Belg. (1895), 136.

LUZON, Manila (8572, *Banks*); Rizal, Montalban Gorge (14059, *Banks*).

Genus **STETHORUS** Weise

pauperculus WEISE,† Ann. Soc. Ent. Belg. (1895), 155.

LUZON, Manila (4737, *Banks*).

rotundatus MOTSCH., Etud. Ent. (1859), 170.

LUZON, Manila (2550, 4950, *Banks*).

Genus **RODOLIA** Mulsant

podagrica WEISE,† Nova Guinea (1908), 5, 2, 307.

NEGROS, Occidental Negros, Maa (252, *Banks*).

rufopilosa MULS.,† Spec. Col. Trim. Séc. (1851), 903.

LUZON, Rizal, Montalban Gorge (5570, *Banks*; 8856, *Schultze*): NEGROS, Occidental Negros, Maa (249, *Banks*): TICA (9605, *McGregor*): PALAWAN, Iwahig (10799, *Schultze*).

Genus **EPILACHNA** Chevrolat

diffinis EYD. et SOUL., Rev. Zool. (1839), 267; MULS., Spec. Col. Trim. Séc. (1851), 783.

diffinis var. **signatula** MULS., Spec. Col. Trim. Séc. (1851), 784.

diffinis var. **stolidula** MULS., Spec. Col. Trim. Séc. (1851), 791.

pusillanima MULS.,*† Spec. Col. Trim. Séc. (1851), 784.

LUZON, Manila (259, *Stangl*); Cagayan, Tawit (11871, *D. C. Worcester*): MINDORO, Bongabon River (8386, *Schultze*), Mansalay (11403, *D. C. Worcester*): TICA (9604, *McGregor*): NEGROS, Occidental Negros, Maa (248, 266, *Banks*), Faraon (12224, *Curran*): MINDANAO, Agusan River (13717, *D. C. Worcester*): PALAWAN, Bacuit (11803, *Weber*).

pytho MULS.,† Spec. Col. Trim. Séc. (1851), 777.

LUZON, Laguna, San Antonio (8743, *Curran*); Sorsogon (9235, *Curran*).

vigintioctopunctata FABR.,*† Syst. Ent. (1775), 84; HERBST, Käfer (1798), 5, 264, Pl. 55, fig. 3; MULS., Spec. Col. Trim. Séc. (1851), 834; MONTR., Ann. Soc. Agr. Lyon (1855), 7, 75.

LUZON, Manila (263, *Schultze*; 270, 2236, 2433, 7283, *Banks*); Bataan, Lamac (7914, *Cuzner*); Tayabas, Baler (11838, *D. C. Worcester*); Benguet, Trinidad (8164, *Banks*): SALTAN, Batanes (11887, *McGregor*).

DERMESTIDÆ

DERMESTINÆ

Genus *DERMESTES* Linnæus

cadaverinus FABR.,† *Syst. Ent.* (1775), 55; OLIV., *Ent.* (1790), 2, 7, Pl. 2, fig. 9.

LUZON, Benguet, Irisan (972, *McGregor*): SIQUIJOR (8962, *Celestino*).

vulpinus FABR.,† *Spec. Ins.* (1781), 1, 64; ERICH., *Nat. Ins. Deutschl.* (1846), 3, 426.

FUGA, Babuyan (635, *McGregor*): NEGROS, Occidental Negros, San Carlos (1601, *Banks*).

ATTAGENIWNÆ

Genus *AETHRIOSTOMA* Motschulsky

gloriosae FABR.,*† *Syst. Eleuth.* (1801), 1, 107; MOTSCH., *Etud. Ent.* (1858), 7, 146.

LUZON, Manila (614, 768, *Banks*; 2759, *Schultze*).

DRYOPIDÆ

Genus *PACHYPARNUS* Fairmaire

talpoides WATERH.,† *Trans. Ent. Soc. London* (1876), 20.

LUZON, Manila (7927, *Schultze*).

HYDROPHILIDÆ

HYDROPHILINÆ

Genus *BEROSUS* LeachSubgenus *Enoplorus* Zaitzev

indicus MOTSCH., *Bull. Soc. Nat. Mosc.* (1861), 34, 110; RÉGIMB., *Ann. Soc. Ent. France* (1902), 473.

LUZON.

Subgenus *Berosus* Kuwert

pubescens MULS., *Opusc. Entom.* (1859), 9, 61; RÉGIMB., *Ann. Soc. Ent. France* (1903), 61.

LUZON.

Genus *REGIMBARTIA* Zaitzev

aenea BRULLE, *Hist. Nat.* (1835), 5, 282; SHARP, *Trans. Ent. Soc. London* (1890), 354.

Genus *HYDROUS* Leach

picicornis CHEVR., *Ann. Soc. Ent. France* (1863), 204.

LUZON.

Genus **HYDROPHILUS** Leach

spiniollis ESCHSCH., Entom. (1822), 1, 41; RÉGIMB., Ann. Soc. Ent. France (1903), 25; (1906), 260.

Genus **STERNOLOPHUS** Solier

rufipes FABR., Ent. Syst. (1792), 1, 183; Syst. Eleuth. (1801), 1, 251.

Genus **ENOCHRUS** Thomson

Subgenus **Lumetus** Zaitzev

escuriens WALK., Ann. & Mag. Nat. Hist. (1858), 2, 209; SHARP, Trans. Ent. Soc. London (1890), 350; RÉGIMB., Ann. Soc. Ent. France (1903), 56.

nigriceps MOTSCH., Etud. Ent. (1859), 8, 46.

LUZON.

SPHAERIDIINÆ

Genus **DACTYLOSTERNUM** Wollaston

rubripes BOHEM., Res. Eugen. (1858), 24; RÉGIMB., Ann. Soc. Ent. France (1903), 63.

LUZON.

HETEROCERIDÆ

Genus **HETEROCERUS** Fabricius

philippensis GROUV., Notes Leyden Mus. (1896), 18, 4.

DASCILLIDÆ

DASCILLINÆ

Genus **EULICHAS** Jacobs

baeri FAIRM., Ann. Soc. Ent. France (1898), 388.

LUZON, Bataan, Lamao (8885, *Ledyard*).

fulvulus WIEDEM., † Zool. Mag. (1830), 1, 3, 173; CAST., Hist. Nat. (1840), 1, 259, Pl. 17, fig. 1; GUÉR., Spec. et Ic. (1843), 4, No. 13, 7, figs. 14-19.

LUZON, Laguna, Los Baños (*coll. Baker*); Tayabas, Tiaong (*A. Worm*).

Genus **DASCILLUS** Latreille

obscuripes PIC, Echange (1912), 28, 68.

BALABAC.

RHIPIDOCERIDÆ

Genus **CALLIRRHIPIS** Latreille

antiqua WATERH., † Trans. Ent. Soc. London (1877), 384; SCHULTZE, Phil. Journ. Sci., Sec. D (1915), 10, 273.

LUZON, Benguet, Irisan (1564, *McGregor*), Baguio (13290, *Sanchez*).

bituberculata SCHULTZE, † Phil. Journ. Sci., Sec. D (1915), 10, 273.

LUZON, Rizal, Montalban (*A. de los Reyes*).

- helleri* SCHULTZE,† Phil. Journ. Sci., Sec. D (1915), 10, 274.
LUZON, Laguna, Paete (*McGregor*).
- montalbanensis* SCHULTZE,† Phil. Journ. Sci., Sec. D (1915), 10, 274.
LUZON, Rizal, Montalban (*A. de los Reyes*).
- nigriventralis* SCHULTZE,† Phil. Journ. Sci., Sec. D (1915), 10, 275.
LUZON, Laguna, Paete (*McGregor*).
- philippinensis* SCHULTZE,† Phil. Journ. Sci., Sec. D (1915), 10, 276.
LUZON, Laguna, Paete (*McGregor*).
- tiaongona* SCHULTZE,† Phil. Journ. Sci., Sec. D (1915), 10, 276.
LUZON, Tayabas, Tiaong (*A. Worm*).

LYCIDÆ

Genus DITONECES Waterhouse

- philippinensis* BOURG., Ann. Soc. Ent. France (1886), 181.
MINDANAO.
- pilosicornis* BLANCH., Voy. Pôle Sud (1853), 4, 79, Pl. 5, fig. 14.
MINDANAO.
- pusillus* BOURG., Ann. Soc. Ent. France (1886), 181.

Genus METRIORRHYNCHUS Guérin

- philippinensis* WATERH., Ill. Typ. Spec. Col. Br. Mus. (1879), 1, 52, Pl. 13,
fig. 4.

Genus TRICHALUS Waterhouse

- cyaneiventris* WATERH., Ill. Typ. Spec. Col. Br. Mus. (1879), 1, 72, Pl. 17,
fig. 6.
LUZON, Laguna, Los Baños (*coll. Baker*).
- longicollis* BOURG., Ann. Mus. Civ. Genova (1883), 18, 27.
LUZON.
- nigricauda* BOURG., Ann. Soc. Ent. France (1886), 181.
MINDANAO.

Genus CALOCHROMUS Guérin

- melanurus* WATERH., Cist. Ent. (1877), 2, 196, fig. 3; Ill. Typ. Spec. Col.
Br. Mus. (1879), 1, 2, Pl. 1, fig. 1.
- orbatus* WATERH., Cist. Ent. (1877), 2, 197, fig. 4; Ill. Typ. Spec. Col.
Br. Mus. (1879), 1, 3, Pl. 1, fig. 3.
LUZON.

LAMPYRIDÆ

LAMPROCERINÆ

Genus VESTA Castelnau

- basalis* GORH.,† Trans. Ent. Soc. London (1880), 14.
LUZON, Laguna, Calauang (14210, *McGregor*), Los Baños (17889,
Baker).

fimbriata E. OLIV., Gen. Ins., Lamp. (1907), 53, 17.

flavicollis MOTSCH., Et. Ent. (1853), 43.

proxima GORH., Trans. Ent. Soc. London (1880), 14; E. OLIV., Ann. Mus. Stor. Nat. Genova (1885), 335.

proxima var. *minor* E. OLIV., Ann. Soc. Ent. France (1886), 182.

MINDANAO, Cabadbaran River (16617, *Weber*), Davao (16899, *Weber*).

rufiventris MOTSCH., Et. Ent. (1853), 43.

xanthura E. OLIV., Ann. Soc. Ent. France (1886), 182.

LAMPYRINÆ

Genus **DIAPHANES** Motschulsky

pellucens E. OLIV., Ann. Soc. Ent. France (1886), 183.

LUCIOLINÆ

Genus **LUCIOLA** Castelnau

abdominalis E. OLIV., Ann. Soc. Ent. France (1886), 184.

LUZON.

angusticollis E. OLIV., Ann. Soc. Ent. France (1886), 184.

MINDANAO.

apicalis ESCHSCH., Entom. (1822), 1, 58.

LUZON.

extincta E. OLIV., Ann. Soc. Ent. France (1886), 184.

infuscata ERICHS., Nov. Act. Leop. Car. (1834), 16, 232.

BOHOL: MINDANAO.

rugiceps E. OLIV., Ann. Soc. Ent. France (1886), 185.

truncata E. OLIV., Ann. Soc. Ent. France (1886), 183.

MINDORO.

vespertina FABR., Syst. Eleuth. (1801), 2, 103; GORH., Trans. Ent. Soc. London (1880), 100.

Genus **PTEROPTYX** E. Olivier

testaceum MOTSCH., Et. Ent. (1852), 48; BOURG., Ann. Soc. Ent. France (1890), 169; E. OLIV., Ann. Mus. Stor. Nat. Genova (1885), 22, 357; Gen. Ins., Lamp. (1907), Pl. 3, fig. 11.

Genus **CALOPHOTIA** Motschulsky

brachyura E. OLIV., Ann. Soc. Ent. France (1886), 185.

concolor E. OLIV., Ann. Soc. Ent. France (1886), 186.

MINDORO: MINDANAO.

miranda E. OLIV., Ann. Soc. Ent. France (1886), 186.

BOHOL.

plagiata ERICHS., Nov. Acta Ac. Leop. Car. (1834), 16, 231.

dives E. OLIV., Ann. Mus. Stor. Nat. Genova (1885), 367.

LUZON.

- praeusta* ESCHSCH., Entom. (1822), 1, 57; GORH., Trans. Ent. Soc. London (1880), 101; E. OLIV., Ann. Mus. Stor. Nat. Genova (1885), 368, Pl. 5, fig. 11, a, b; Gen. Ins., Lamp. (1907), Pl. 3, fig. 9.
LUZON, Albay.

Genus **PYROPHANES** E. Olivier

- appendiculata* E. OLIV., Ann. Mus. Stor. Nat. Genova (1885), 369.
LUZON.

quadrifasciata E. OLIV., Ann. Soc. Ent. France (1886), 187.

- quadrifasciata* var. *bifasciata* E. OLIV., Ann. Soc. Ent. France (1886), 187.
LUZON, Albay.

TELEPHORIDÆ

Genus **TYLOCERUS** Dalman

- atricornis* GUÉR., Voy. Favorite (1838), 37; CAST., Hist. Nat. (1840), 1, 276.
LUZON.

Genus **CANTHARIS** Linnæus

flavifemoralis BLANCH., Voy. Pôle Sud (1853), 4, 67, Pl. 5, fig. 3.

granulipennis BOHEM., Res. Eugen. (1858), 78.

LUZON, Tayabas, Baler (11621, *D. C. Worcester*): MINDORO, Baco River (3395, *McGregor*).

Genus **ICHTHYURUS** Westwood

- dohrni* FAIRM., Stett. Ent. Zeitg. (1867), 114.
LUZON.

scripticollis FAIRM., Stett. Ent. Zeitg. (1867), 115.
LUZON.

semperi FAIRM., Stett. Ent. Zeitg. (1867), 113.
LUZON.

MELYRIDÆ

Genus **LAIUS** Guérin

- pictus* ERICHS., † Entom. (1840), 63.
LUZON, Rizal, Montalban Gorge (5349, 5568, *Banks*).

Genus **MALACHIUS** Fabricius

- rufiventris* ESCHSCH., Entom. (1822), 1, 64.
LUZON.

Genus **PRINOCERUS** Perty

coeruleipennis PERTY, † Obs. Col. Ind. (1831), 33, Pl. 1, fig. 4; GUÉR., Voy. Bellanger, Zool., 494, Pl. 2, fig. 2.

LUZON, Manila (1615, 2303, 2412, *Schultze*; 4127, *Banks*).

forticornis SCHAUF., Horae Soc. Ent. Ros. (1887), 21, 126.

CLERIDÆ

CLERINÆ

Genus **CYLIDRUS** Latreille

cyaneus FABR., † Mant. Ins. (1787), 126.

vescoi FAIRM., Rev. Zool. (1849), 361.

alcyoneus PASC., Journ. Ent. (1860), 1, 44.

pallipes CHEVR., Rev. Mag. Zool. (1874), 280.

NEGROS, Occidental Negros, Bago (6497, *Banks*): BOHOL (6779, *McGregor*): PALAWAN, Iwahig (10747, *Schultze*).

Genus **CLADISCUS** Chevrolat

sanguinicollis SPIN., Mon. Cler. (1844), 1, 125; GORH., Proc. Zool. Soc. London (1893), 567; SCHENKL., Deutsche Ent. Zeitschr. (1906), 276.

LUZON.

strangulatus CHEVR., Ann. Soc. Ent. France (1843), 33; LACORD., Gen. Col., Atlas, Pl. 45, fig. 4; GORH., Proc. Zool. Soc. London (1893), 567.

Genus **TILLUS** Olivier

bifasciellus WHITE, Cat. Clerid. (1849), 49.

carinulatus SCHENKL., Deutsche Ent. Zeitschr. (1908), 364.

MINDORO.

notatus KLUG, † Cat. Clerid. (1842), 276; SCHENKL., Deutsche Ent. Zeitschr. (1898), 185.

lewisi KIESENW., Deutsche Ent. Zeitschr. (1879), 313.

notatus var. **semperanus** GORH., Cist. Ent. (1876), 2, 62; SCHENKL., Deutsche Ent. Zeitschr. (1898), 362.

notatus var. **tristis** SCHENKL., Ann. Mus. Civ. Genova (1899), 332; GORH., Cist. Ent. (1892), 729; Proc. Zool. Soc. London (1893), 567.

LUZON, Manila (4682, *Banks*): NEGROS, Occidental Negros, Bago (1401, *Banks*).

Genus **CYLINDROCTENUS** Kraatz

chalybaeum WESTW., † Cat. Clerid. (1849), 51; Proc. Zool. Soc. London (1852), 41, Pl. 24, fig. 5; GORH., Ann. Mus. Civ. Genova (1892), 12, 733; KRAATZ, Ann. Soc. Ent. Belg. (1899), 214.

NEGROS, Occidental Negros, Faraon (12236, *Curran*).

Genus **GASTROCENTRUM** Gorham

unicolor WHITE, † Cat. Clerid. (1849), 56; GAHAN, Ann. & Mag. Nat. Hist. (1910), VIII, 5, 61.

pauper GORH., Cist. Ent. (1876), 2, 63.

LUZON.

Genus **CALLIMERUS** Gorham

dulcis WESTW., Proc. Zool. Soc. London (1852), 20, 40, Pl. 24, fig. 6; GORH., Cist. Ent. (1876), 2, 66; Ann. Mus. Civ. Genova (1892), 12, 723; SCHENKL., Deutsche Ent. Zeitschr. (1906), 252.

gratiosus GORH., Cist. Ent. (1876), 2, 66.
MINDANAO.

latifrons GORH., Cist. Ent. (1876), 2, 67.

pulchellus GORH., Cist. Ent. (1876), 2, 67; WATERH., Aid Ins. (1881), 1, Pl. 45.

schultzei SCHENKL., Phil. Journ. Sci., Sec. D (1913), 8, 303.

LUZON, Benguet, Baguio (1598, *Banks*): NEGROS, Occidental Negros, Bago (1392, *Banks*).

Genus *OPILO* Latreille

mollis LINN., Syst. Nat., ed. 10 (1758), 388; GORH., Ann. Soc. Ent. Belg. (1891), 35, 424.

Genus *STIGMATIUM* Gray

Subgenus *Stigmatium* Kuwert

centrale GORH., Cist. Ent. (1876), 2, 94.
LUZON: MINDANAO.

encaustum GORH., Cist. Ent. (1876), 2, 93.
BOHOL.

laterifoveatum KUW., Ann. Soc. Ent. Belg. (1894), 38, 407.

masteri MACLEAY, Trans. Ent. Soc. N. S. Wales (1894), 2, 406, 438.

philippinarum GORH.,† Cist. Ent. (1876), 2, 93.
amboinae KUW., Ann. Soc. Ent. Belg. (1894), 38, 406.
LUZON, Benguet, Irian (7221, *McGregor*).

subfuscum GORH., Cist. Ent. (1876), 2, 94.
MINDANAO.

tuberculibase KUW., Ann. Soc. Ent. Belg. (1894), 407.
LUZON, Benguet, Irian (1250, *McGregor*).

Genus *DASYCEROCLERUS* Kuwert

banksi SCHENKL., Phil. Journ. Sci., Sec. D (1913), 8, 304.
PALAWAN, Bacuit (12364, *Weber*).

Genus *OMADIUS* Castelnau

aurifasciatus GORH.,† Cist. Ent. (1876), 2, 102.
LUZON, Laguna, Calauang (14182, *McGregor*).

indicus CAST., Silberm. Rev. d'Ent. (1836), 4, 49; GORH., Ann. Soc. Ent. Belg. (1895), 39, 276.
prolixus KLUG, Cat. Clerid. (1842), 287; KUW., Ann. Soc. Ent. Belg. (1894), 67.

kamelianus WHITE, Cat. Clerid. (1849), 53.

nimbifer GORH.,† Cist. Ent. (1876), 2, 102.
LUZON, Laguna, Calauang (14200, *McGregor*); Benguet, Irian (1252, *McGregor*): NEGROS, Occidental Negros, Mount Canlaon (6244, *Banks*).

notatus GORH.,† Cist. Ent. (1876), 2, 103; Proc. Ent. Soc. London (1894), 43.

LUZON, Laguna, Mount Maquiling (17805, *Baker*).

posticallis GORH., Cist. Ent. (1876), 2, 105.

LUZON.

trifasciatus CAST.,† Silberm. Rev. d'Ent. (1836), 4, 49; SPIN., Mon. Cler. (1844), 1, 176, Pl. 13, fig. 2; KUW., Ann. Soc. Ent. Belg. (1894), 38, 72.

modestus KLUG, Mon. Clerid. (1842), 288, Pl. 1, fig. 2.

LUZON, Laguna, Calauang (14167, *McGregor*).

vespiformis GORH., Cist. Ent. (1876), 2, 103.

Genus ANTHICOCLERUS Schenkling

anthicoides WESTW., Cat. Clerid. (1849), 59; Proc. Zool. Soc. London (1852), 43, Pl. 27, fig. 8; SCHENKL., Ann. Mus. Civ. Genova (1901), 20, 138; Stett. Ent. Zeitg. (1902), 367.

NEGROS, Occidental Negros, Maa0 (1397, *Banks*).

pallipes GORH.,† Trans. Ent. Soc. London (1878), 162.

NEGROS, Occidental Negros, Maa0 (1121, *Banks*).

Genus THANEROCLERUS Lefèvre

buqueti LEF.,*† Ann. Soc. Ent. France (1835), 577, Pl. 16, fig. 4; CHENU, Encyl. d'Hist. Nat. Col. (1860), 2, 247; WESTW., Bull. Soc. Ent. France (1838), 13; SPIN., Mon. Cler. (1844), 1, 207; GORH., in Ritsema, Midden-Sumatra, Col. (1887), 4, 78; GAHAN, Ann. & Mag. Nat. Hist. (1910), 5, 63; JONES, Phil. Journ. Sci., Sec. D (1913), 8, 1, Pl. 1, figs. 10-13.

buqueti var. *pondicherryanus* SPIN., Mon. Cler. (1844), 1, 208, Pl. 17, fig. 3.

LUZON, Manila (15092, *Jones*).

Genus NEOHYDNUS Gorham

pallipes KRAATZ, Ann. Soc. Ent. Belg. (1899), 215; SCHENKLG., Ann. Mus. Civ. Genova (1899), 344.

LUZON, Laguna, Los Baños (*coll. Baker*).

CORYNETINÆ

Genus ALLOCHOTES Westwood

maculata WATERH., Ent. Month. Mag. (1876), 13, 126.

Genus TENERUS Castelnau

cyanopterus SPIN., Mon. Cler. (1844), 1, 165, Pl. 8, fig. 4.

LUZON.

mindanaonicus GORH., Trans. Ent. Soc. London (1877), 407.

MINDANAO.

philippinarum CHEVR., Mém. Cler. (1876), 37.

praeustus CAST., Silberm. Rev. d'Ent. (1836), 4, 43; SPIN., Mon. Cler. (1844), 1, 167, Pl. 11, fig. 2.

signaticollis CAST., Silberm. Rev. d'Ent. (1836), 4, 44; SCHENKL., Deutsche Ent. Zeitschr. (1902), 11.

Genus **TARSOSTENUS** Spinola

univittatus ROSSI, Faun. Etrusc. (1792), 1, 147.

fasciatus CURTIS, Brit. Ent. (1832), 6, Pl. 270.

succinctus CHEVR., Rev. Zool. (1842), 277.

albofasciatus MELSH., Proc. Acad. Sci. Phil. (1846), 2, 306.

picipennis WESTW., Cat. Clerid. (1849), 4, 48.

biguttatus MONTR., Ann. Soc. Ent. France (1860), 260.

LUZON, Manila (2928, 4703, 5698, *Banks*; 13506, *Schneider*).

Genus **NECROBIA** Olivier

rufipes DEGEER,*† Mem. Ins. (1775), 5, 165, Pl. 15, fig. 4.

LUZON, Manila (4194, *Banks*): NEGROS, Occidental Negros, Bago (901, 1600, *Banks*): ROMBLON (2903, *Walker*).

LYMEXYLONIDÆ

Genus **ATRACTOCERUS** Palisot de Beauvois

bruijni GESTRO, Ann. Mus. Genova (1874), 6, 545.

LUZON.

emarginatus CAST., in Silberm. Rev. d'Ent. (1836), 4, 59; SCHENKL., Ent. Mitt. (1914), 3, 319.

celebensis GESTRO, Ann. Mus. Genova (1874), 6, 545; SCHENKL., Ent. Mitt. (1914), 3, 319.

debilis WALK., Ann. & Mag. Nat. Hist. (1858), 2, 285; SCHENKL., Ent. Mitt. (1914), 3, 319.

fissicollis FAIRM., Bull. Ann. Soc. Ent. Belg. (1885), 108; SCHENKL., Ent. Mitt. (1914), 3, 319.

horni BOURG., Bull. Ann. Soc. Ent. France (1905), 133; (1909), 438, Pl. 12, fig. 11; SCHENKL., Ent. Mitt. (1914), 3, 319.

luteolus FAIRM., Notes Leyden Mus. (1882), 4, 217; RITSEMA, Mid-den-Sumatra, Col. (1887), 4, 79; SCHENKL., Ent. Mitt. (1914), 3, 319.

PALAWAN, Iwahig (11977, *Weber*).

ANOBIIDÆ

ANOBIINÆ

Genus **SITODREPA** C. G. Thomson

panicea LINN.,*† Fauna Suec. (1761), 145; PANZ., Fauna Germ. (1795), 6; MULS., Ann. Soc. Linn. Lyon (1863), 10, 82.

LUZON.

Genus **LASIODERMA** Stephens

serricorne FABR.,*† Ent. Syst. (1792), 1, 241; CHEVR., Ann. Soc. Ent. France (1861), 390; MULS. and REY, Tereidiles (1864), 294;

- LEC., Proc. Acad. Sci. Phil. (1865), 238; BAUDI, Berl. Ent. Zeitschr. (1873), 17, 333; SCHILSKY, Käf. Eur. (1899), 36, 27; REITT., Fauna Germ. (1911), 3, 316; EVERTS, Col. Neerl. (1903), 2, 240; FALL, Trans. Am. Ent. Soc. (1905), 31, 205; JONES, Phil. Journ. Sci., Sec. D (1913), 8, 2.
breve WOLL., Ann. & Mag. Nat. Hist. (1861), 7, 15.
rufescens STURM, Cat. (1826), 206.
testaceum DUFTSCHM., Fauna Austr. (1825), 3, 46; STEPH., Ill. Brit. Ent. Mant., App. (1832), 5, 417.
 LUZON, Manila (*Banks, Schultze, Jones*).

PTINIDÆ

GIBBIINÆ

Genus GIBBIUM Scopoli

- psylliodes* CZEMP.,*† Dissert. Inaug. (1778), 51; KIESW., Naturg. Ins. Deutschl. (1877), 5, 46; LAMEERE, Man. Faune Belg. (1900), 2, 272; EVERTS, Col. Neerl. (1903), 2, 215, Pl. 213, fig. 88; FALL, Trans. Am. Ent. Soc. (1905), 31, 102.
scotias FABR., Spec. Ins. (1781), 1, 74; Mant. Ins. (1787), 1, 40; Ent. Syst. (1792), 1, 241; Syst. Eleuth. (1801), 1, 327; OLIV., Ent. (1790), 2, Pl. 1, fig. 2; SCHULTZE, Phil. Journ. Sci., Sec. A (1908), 3, 299.
 LUZON, Manila (9255, *Schultze, Walker*); Pampanga, San Juan (3000, *Williamson*).

PTININÆ

Genus PTINUS Linnæus

- rugosithorax* PIC, Misc. Ent. (1896), 4, 47; Echange (1910), 26, 82.
 BALABAC.

BOSTRYCHIDÆ

Genus DINODERUS Stephens

- brevis* HORN,*† Proc. Am. Phil. Soc. (1878), 17, 550.
 NEGROS, Occidental Negros, Maa (415, 1592, *Banks*).
distinctus LESNE, Ann. Soc. Ent. France (1897), 325.
minutus FABR., Syst. Ent. (1775), 54.
substriatus STEPH., Ill. Brit. Ent. (1830), 3, 352.
siculus BANDI, Berl. Ent. Zeitschr. (1873), 17, 336.
bifoveolatus WOLL., Ann. & Mag. Nat. Hist. (1858), III, 2, 409.
 NEGROS, Occidental Negros, Maa (1593, *Banks*).
pilifrons LESNE, Ann. Soc. Ent. France (1895), 170.

Genus BOSTRYCHOPSIS Lesne

- parallela* LESNE,*† Ann. Soc. Ent. France (1895), 174.
 LUZON, Manila (3251, *Schultze*); Rizal, Taytay (11036, *Banks*).

Genus *HETEROBOSTRYCHUS* Lesne

- aequalis* WATERH.,*† Proc. Zool. Soc. London (1884), 215, Pl. 16, fig. 3.
 LUZON, Manila (6160, *Banks*; 7484, *Shaw*): NEGROS, Occidental Negros,
 Faraon (12241, *Curran*).
hamatipennis LESNE, Ann. Soc. Ent. France (1895), 173.
niponensis LEWIS, Ann. & Mag. Nat. Hist. (1896), 17, 339.
pileatus LESNE, Ann. Soc. Ent. France (1898), 559.

Genus *XYLOTHRIPS* Lesne

- flavipes* ILL., Mag. f. Insekt. (1801), Hefte 1-2, 171 (♂).
dominicanus FABR., Syst. Eleuth. (1801), 2, 380 (♀); LESNE, Bull.
 Soc. Ent. France (1895), 178.
sinuatus STEPH., Ill. Brit. Ent. (1830), 3, 351, Pl. 19, fig. 6.
religiosae FAIRM., Rev. et Mag. Zool. (1850), 2, 50.
mutilatus WALK., Ann. & Mag. Nat. Hist. (1858), 2, 286.
iracundus SNELL., Rech. sur la faune de Madag. (1869), 5, 10,
 Pl. 1, fig. 7.
 CALAYAN, Babuyan (662, *McGregor*): LUZON, Tayabas, Baler (11846,
McGregor): NEGROS, Occidental Negros, Bago (412, 1685, 1687,
Banks), Faraon (12226, *Curran*): MINDANAO, Zamboanga (8850,
Hutchinson): PALAWAN, Taytay (17172, *Schultze*).
religiosus BOISD., Voy. de l'Astrolabe (1835), 2, 460; LESNE, Bull. Soc.
 Ent. France (1895), 178.
religiosae FAIRM., Rev. et Mag. Zool. (1850), 2, 50 (pro parte).
destructor MONTR., Ann. Soc. d'Agr. (1855), 7, 55.
lifuanus MONTR., Ann. Soc. Ent. France (1861), 267.

Genus *XYLIPSOCUS* Lesne

- capucinus* FABR., Spec. Ins. (1781), 1, 62.
eremita OLIV., Encyl. Méth. (1790), 5, 110, Pl. 2, fig. 11.
marginatus FABR., Syst. Eleuth. (1801), 2, 382.
nicobaricus REDTENB., Reise Novara, Zool. (1868), 2 (1), 114.

Genus *SINOXYLON* Duftschmid

- anale* LESNE, Ann. Soc. Ent. Belg. (1897), 21.
macleayi BLACKB., Proc. Linn. Soc. N. S. Wales (1889), 3, 1429.
 LUZON, Manila (2691, *Schultze*; 4769, *Banks*); Benguet, Trinidad
 (8662, *Banks*).
conigerum GERST., Monatsber. Berl. Acad. (1855), 268.
 LUZON, Manila (2970, *Banks*).

BUPRESTIDÆ

Genus *PHRIXIA* H. Deyrolle

- cumingi* WATERH., Ann. & Mag. Nat. Hist. (1887), 19, 290.
vittaticollis WATERH., Ann. & Mag. Nat. Hist. (1887), 19, 291; KERREM.,
 Mon. Bupr. (1906), 1, 399.

Genus *CASTALIA* Castelnau et Gory

- obsoleta* CHEVR.,† Rev. Zool. (1841), 221; KERREM., Mon. Bupr. (1906), 1, 433.
inornata CHEVR., Rev. Zool. (1841), 222.
cyanipennis H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 76.
curta H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 77.
unicolor THOMS., Typ. Bupr. (1878), 46.
moereus LANSB., Bull. Ann. Soc. Ent. Belg. (1880), 23, 137.
 LUZON, Manila (374, 1511, 3223, 7526, 8957, *Stangl, McGregor, Schultze*); Laguna, Magdalena (1749, *Schultze*): PANAY, Iloilo (6335, *Banks*): PALAWAN, Taytay (17082, *Schultze*).

Genus *ACMAEODERA* Eschscholtz

- luzonica* NONFR.,† Berl. Ent. Zeitschr. (1895), 40, 302; KERREM., Mon. Bupr. (1907), 2, 432.
 LUZON, Laguna, Los Baños (*coll. Baker*); Ambos Camarines, Ragay (6207, *Barredo*).
stictipennis CAST. et GORY, Mon. Bupr. (1835), 1, 26, Pl. 8, fig. 45; KERREM., Mon. Bupr. (1907), 2, 431.

Genus *POLYCTESIS* Marseul

- igorrota* HELLER, Notes Leyden Mus. (1891), 3, 159; KERREM., Mon. Bupr. (1907), 2, 526.
 LUZON, Ilocos Norte, Bangui (17300, *Banks*).

Genus *PTOSIMA* Solier

- indica* CAST. et GORY, Mon. Bupr. (1835), 1, 4, Pl. 1, fig. 3; KERREM., Mon. Bupr. (1907), 2, 551.

Genus *CHRYSOCHROA* Solier

Subgenus *Catoxantha* Solier

- purpurea* WHITE,† Ann. & Mag. Nat. Hist. (1843), 12, 242; KERREM., Mon. Bupr. (1909), 3, 19.
 LUZON, Rizal, Montalban Gorge (7656, 8096, 8836, *Schultze, Nash*); Laguna, Calauang (14186, *McGregor*).

Subgenus *Megaloxantha* Kerremans

- bicolor* FABR., Syst. App. (1778), 825; OLIV., Encyl. Méth. (1790), 5, 213; SCHÖNH., Syn. Ins. (1817), 1, 212; CAST. et GORY, Mon. Bupr. (1835), 1, 3, Pl. 1, fig. 1; KERREM., Mon. Bupr. (1909), 3, 21.
gigantes SCHALL., Act. Acad. Nat. Car. (1773), 304, Pl. 1, fig. 5.
heros WIEDEM., Zool. Mag. (1823), 99.
nigricornis H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 1.
brunnea SAUND., Trans. Ent. Soc. London (1866), 5, 300, Pl. 21, fig. 1.
mouhoti SAUND., Trans. Ent. Soc. London (1869), 9, 3, Pl. 1, fig. 1.
assamensis THOMS., Bull. Ann. Soc. Ent. France (1879), 9, 70.
cyanura KERREM., Ann. Soc. Ent. Belg. (1892), 36, 171.
 PALAWAN, Mount Salacot (13010, *Lamb*).

Subgenus *Chrysochroa* Solier

- aurotibialis* H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 6; KERREM., Mon. Bupr. (1909), 3, 87.
tenuicauda KERREM., Ann. Soc. Ent. Belg. (1891), 35, 156.
- chrysuroides* H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 8; KERREM., Mon. Bupr. (1909), 3, 99.
- fulminans* FABR., Mant. Ins. (1787), 1, 177; CAST. et GORY, Mon. Bupr. (1835), 1, 9, Pl. 2, fig. 7; KERREM., Mon. Bupr. (1909), 3, 102.
fulgurans ILLIG., Wied. Arch. (1800), 1, 117; HERBST, Col. (1801), 9, 69, Pl. 138, fig. 5.
ceylonensis VOET, Cat. Col. (1806), 1, 94, Pl. 1, fig. 2.
chrysura GORY, Mon., Suppl. (1840), 4, 55, Pl. 10, fig. 55.
patruelis STURM, Cat. (1843), 56.
lata SCHAUF., Horae Soc. Ent. Ross. (1883), 19, 199.
- LUZON: BOHOL: LEYTE: MINDANAO.
- praelonga* WHITE, Ann. & Mag. Nat. Hist. (1843), 12, 343; KERREM., Mon. Bupr. (1909), 3, 92.
eschschoitzii LA FORTE and H. DEYR., MS.
- LUZON: MINDANAO.
- semperi* SAUND.,† Trans. Ent. Soc. London (1874), 303; KERREM., Mon. Bupr. (1909), 3, 94.
 LUZON, Cagayan, Tuguegarao (4580, *Williamson*); Rizal, Montalban Gorge (8094, *Schultze*).

Genus *EPIDELUS* H. Deyrolle

- wallacel* THOMS., Arch. Ent. (1857), 1, 109; DEYR., Ann. Soc. Ent. Belg. (1864), 8, 50, Pl. 2, fig. 2; KERREM., Mon. Bupr. (1909), 3, 297.
philippinensis SAUND., Trans. Ent. Soc. London (1874), 314.
tricolor NONF., Ent. Nachr. (1894), 4.
- LUZON, Laguna, Mount Maquililing (*coll. Baker*).

Genus *IRIDOTAENIA* H. Deyrolle

- cupreomarginata* SAUND., Trans. Ent. Soc. London (1874), 304; KERREM., Mon. Bupr. (1909), 3, 488.
 MINDANAO.
- curta* H. DEYR.,† Ann. Soc. Ent. Belg. (1864), 8, 29; KERREM., Mon. Bupr. (1909), 3, 487.
 SIBUYAN (1924, *McGregor*).
- palawana* KERREM.,† Ann. Soc. Ent. Belg. (1895), 39, 195; Mon. Bupr. (1909), 3, 490.
 LUZON, Benguet, Irisan (1081, *McGregor*): SIBUYAN (1923, *McGregor*).
- sulcifera* SAUND., Trans. Ent. Soc. London (1874), 306; KERREM., Mon. Bupr. (1909), 3, 491.
 LUZON.
- trivittata* SAUND., Trans. Ent. Soc. London (1874), 305; KERREM., Mon. Bupr. (1909), 3, 492.
 LUZON: MINDANAO.

Genus **CHRYSOEDEMA** Castelnau et Gory

- adjuncta** SAUND., Trans. Ent. Soc. London (1874), 310; KERREM., Mon. Bupr. (1909), 3, 538.
LUZON, Laguna, Mount Maquiling (*coll. Baker*).
- antennata** SAUND., Trans. Ent. Soc. London (1874), 313; KERREM., Mon. Bupr. (1909), 3, 560.
PALAWAN: MINDANAO.
- aurofoveata** GUÉR., Voy. Coquille, Ins. (1831), 64, Pl. 2, fig. 2; CAST. et GORY, Mon. Bupr. (1835), 1, 5, Pl. 2, fig. 5; DEYR., Ann. Soc. Ent. Belg. (1864), 8, 20; KERREM., Mon. Bupr. (1909), 3, 576.
violacea KERREM., Deutsche Ent. Zeitschr. (1906), 412.
- costata** THOMS., Typ. Bupr. App. (1879), 8; KERREM., Mon. Bupr. (1909), 3, 523.
LUZON, Manila.
- cuprea** KERREM., Ann. Soc. Ent. Belg. (1895), 39, 199; Mon. Bupr. (1909), 3, 577.
SULU ISLANDS.
- deyrollei** SAUND., Trans. Ent. Soc. London (1874), 307; KERREM., Mon. Bupr. (1909), 3, 558.
LUZON.
- dohrni** SAUND., Trans. Ent. Soc. London (1874), 308; KERREM., Mon. Bupr. (1909), 3, 532.
fairmairei KERREM., Ann. Soc. Ent. Belg. (1895), 39, 196.
- eximia** CAST. et GORY, Mon. Bupr. (1835), 1, 8, Pl. 2, fig. 9; KERREM., Mon. Bupr. (1909), 3, 531.
LUZON, Laguna, Los Baños (*coll. Baker*).
- flavicornis** SAUND., Trans. Ent. Soc. London (1874), 306; KERREM., Mon. Bupr. (1909), 3, 512.
BOHOL.
- fuscitarsis** KERREM., Ann. Soc. Ent. Belg. (1895), 39, 194; Mon. Bupr. (1909), 3, 505.
PALAWAN: MINDORO: MINDANAO.
- granulosa** KERREM., Ann. Soc. Ent. Belg. (1895), 39, 197; Mon. Bupr. (1909), 3, 561.
- hebes** KERREM., Ann. Soc. Ent. France (1892), 23; Mon. Bupr. (1909), 3, 562.
MINDANAO.
- intercostata** SAUND., Trans. Ent. Soc. London (1874), 308; KERREM., Mon. Bupr. (1909), 3, 529.
LUZON.
- jucunta** CAST. et GORY, Mon. Bupr. (1835), 1, 6, Pl. 2, fig. 6; KERREM., Mon. Bupr. (1909), 3, 556.
smaragdula CAST. et GORY, Mon. Bupr. (1835), 1, 8, Pl. 2, fig. 10.
dalmani MANN., MS. Saund. Cat. Bupr. (1871), 13.
subrevisa THOMS., Typ. Bupr. App. (1879), 1, 9.
LUZON: MINDORO: LEYTE: BOHOL: MINDANAO.

manillarum THOMS., Typ. Bupr. App. (1879), 1, 9; KERREM., Mon. Bupr. (1909), 3, 555.

LUZON, Manila.

mniszewski H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 6, Pl. 1, fig. 4; KERREM., Mon. Bupr. (1909), 3, 533.

aeneo-violacea H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 16.

PALAWAN.

moluccana H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 24.

LUZON, Manila.

philippinensis CAST. et GORY, Mon. Bupr. (1835), 1, 1, Pl. 2, fig. 9; KERREM., Mon. Bupr. (1909), 3, 559.

rouxi CAST. et GORY, Mon. Bupr. (1835), 1, 9, Pl. 3, fig. 11.

LUZON: CEBU: MINDANAO.

proxima SAUND., Trans. Ent. Soc. London (1874), 311; KERREM., Mon. Bupr. (1909), 3, 551.

MINDANAO.

purpureicollis SAUND., Trans. Ent. Soc. London (1874), 309; KERREM., Mon. Bupr. (1909), 3, 537.

LUZON: CEBU.

smaragdula OLIV., Ent. (1790), 2, 36, Pl. 1, fig. 2; KERREM., Mon. Bupr. (1909), 3, 547.

orientalis VOET, Cat. Col. (1806), 1, 95, Pl. 1, fig. 15.

chrysoscoelis BOISD., Voy. de l'Astrolabe (1835), 2, 69.

arrogans BOISD., Voy. de l'Astrolabe (1835), 2, 72.

aurifera CAST. et GORY, Mon. Bupr. (1835), 1, 14, Pl. 4, fig. 19.

impressicollis CAST. et GORY, Mon. Bupr. (1835), 1, 16, Pl. 4, fig. 22.

stevensi THOMS., Arch. Ent. (1857), 1, 432, Pl. 16, fig. 8.

aruensis THOMS., Arch. Ent. (1857), 1, 433, Pl. 16, fig. 9.

laevissima KERREM., Wytsm. Gen. Ins. (1903), fasc. 12, 75.

LUZON: LEYTE: BOHOL: MINDANAO.

variipennis SAUND., Trans. Ent. Soc. London (1874), 310; KERREM., Mon. Bupr. (1909), 3, 539.

LUZON: MINDORO: MINDANAO: PALAWAN.

violacea KERREM., Ann. Soc. Ent. France (1892), 22; Mon. Bupr. (1909), 3, 554.

Genus *CYPHOGASTRA* H. Deyrolle

aereiiventris KERREM., Ann. Soc. Ent. Belg. (1895), 39, 205; Mon. Bupr. (1910), 4, 231.

cupricollis KERREM., Ann. Soc. Ent. Belg. (1895), 39, 207.

SULU ISLANDS.

santae-crucis KERREM., Ann. Soc. Ent. Belg. (1895), 39, 205; Mon. Bupr. (1910), 4, 82.

LUZON, Laguna, Santa Cruz.

Genus *HAPLOTRINCHUS* Kerremans

cupreomaculatus SAUND., Trans. Ent. Soc. London (1867), 306, Pl. 21, fig. 7.

inaequalis H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 56.
LUZON.

viridula OLIV., Ent. (1790), 2, 27, Pl. 10, fig. 112.
LUZON: MINDANAO.

Genus **DICERCOMORPHA** H. Deyrolle

albosparsa CAST. et GORY, Mon. Bupr. (1837), 1, 39, Pl. 10, fig. 47.
BOHOL: MINDANAO.

cupreomaculata WATERH., Ann. & Mag. Nat. Hist. (1913), 12, 182.

fasciata WATERH., Ann. & Mag. Nat. Hist. (1913), 12, 182.

mutabilis SAUND.,† Trans. Ent. Soc. London (1874), 314.
argenteoguttata THOMS., Typ. Bupr. App. (1879), 13.
viridicollis THOMS., Typ. Bupr. App. (1879), 14.

LUZON, Rizal, Montalban (8097, *Schultze*); Laguna, Los Baños (*coll. Baker*).

Genus **LAMPRA** Lacordaire

semperi SAUND.,† Trans. Ent. Soc. London (1874), 315.
LUZON, Benguet, Irisan (1510, *McGregor*); Bataan, Lamao (6492, *Carpenter*).

Genus **PHILANTHAXIA** H. Deyrolle

cupricauda KERREM., Ann. Soc. Ent. Belg. (1895), 39, 211.

lata KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 83.
LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus **CHRYSOBOTHRIIS** Eschscholtz

bistripunctata H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 111.
LUZON, Laguna, Los Baños (*coll. Baker*).

octonotata SAUND., Trans. Ent. Soc. London (1874), 317.

philippinensis SAUND.,† Trans. Ent. Soc. London (1874), 317.
LUZON, Manila (118, *Araneta*; 2707, *Schultze*); Rizal, Montalban Gorge (8095, *Nash*); Benguet, Irisan (1265, *McGregor*): MINDORO, Magaran (10766, *Schultze*): PALAWAN, Iwahig (11631, *Weber*), Lake Manguao (17277, *Schultze*).

pictiventris SAUND., Trans. Ent. Soc. London (1874), 316.

ventralis SAUND., Trans. Ent. Soc. London (1874), 318.

Genus **BELIONOTA** Eschscholtz

fallaciosa H. DEYR.,† Ann. Soc. Ent. Belg. (1864), 8, 84.
LUZON, Manila (2608, *Schultze*): TICAO (1069, *McGregor*): SIBUYAN (1927, *McGregor*).

mindorensis KERREM., Ann. Soc. Ent. Belg. (1898), 42, 132.
MINDORO.

sagittaria ESCHSCH., Zool. Atl. (1829), 1, 8, Pl. 4, fig. 5.

Genus **CORAEBUS** Castelnau et Gory

cisseoides SAUND., Trans. Ent. Soc. London (1874), 319.

coelestis SAUND., Trans. Ent. Soc. London (1874), 319.

hastanus CAST. et GORY,† Mon. Bupr. (1839), 2, 10, Pl. 2, fig. 14.

LUZON, Tarlac, Gerona (361, *Fernandez*): BATAN, Batanes (7774, *McGregor*).

melibaeiformis SAUND., Trans. Ent. Soc. London (1874), 321.

pullatus SAUND., Trans. Ent. Soc. London (1874), 320.

LUZON, Laguna, Mount Banahao (7175, *Banks*); Tayabas, Mauban (8731, *Curran*).

spinosus CAST. et GORY, Mon. Bupr. (1839), 2, 10, Pl. 2, fig. 13.

laportei SAUND., Cat. Bupr. (1871), 104, No. 18.

transversus KERREM., Mém. Soc. Ent. Belg. (1900), 79.

LEYTE.

Genus **MELIBAEUS** H. Deyrolle

aeneifrons H. DEYR.,† Ann. Soc. Ent. Belg. (1864), 8, 134.

LUZON, Laguna, Los Baños (*Baker*).

bakeri KERREM.,† Phil. Journ. Sci., Sec. D (1914), 9, 84.

LUZON, Laguna, Los Baños (*Baker*).

Genus **SAMBUS** H. Deyrolle

auricolor SAUND.,† Trans. Ent. Soc. London (1874), 322.

LUZON, Laguna, Los Baños (17878, *Baker*).

lugubris SAUND.,† Trans. Ent. Soc. London (1874), 323.

LUZON, Manila (2508, *Schultze*); Cagayan, Ilagan (9787, *Stephens*); Bataan, Lamao (9856, *Curran*).

Genus **CRYPTODACTYLUS** H. Deyrolle

philippinensis SAUND., Trans. Ent. Soc. London (1874), 321.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **TOXOSCELUS** H. Deyrolle

rugicollis SAUND., Trans. Ent. Soc. London (1874), 322.

LUZON.

Genus **CISSEICORAEBUS** Kerremans

grandis KERREM., Mém. Soc. Ent. Belg. (1900), 7, 77.

SAMAR.

Genus **AGRILUS** Stephens

abdominalis SAUND., Trans. Ent. Soc. London (1874), 325.

acutus THUNB.,† Mus. Acad. Upsal. (1787), 4, 52.

armatus WEBER, Obs. Ent. (1801), 74.

spinosus FABR., Syst. Eleuth. (1801), 2, 214.

cupreomaculatus HERBST, Col. (1801), 9, 248, Pl. 155, fig. 8.

pulchellus KIRBY, Trans. Linn. Soc. London (1818), 12, 380.

- mucronatus* BOHEM., Res. Eugen. (1858), 2, 63.
acanthopterus HAROLD, Col. Hefte (1869).
 LUZON, Manila (3344, 9911, *Banks, Schultze*).
- aegnicollis* ESCHSCH., Entom. (1822), 1, 78.
 LUZON.
- atomus* KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 87.
 LUZON, Laguna, Los Baños (*coll. Baker*).
- bakeri* KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 85.
 LUZON, Laguna, Los Baños (*coll. Baker*).
- balnearis* KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 87.
 LUZON, Laguna, Los Baños (*coll. Baker*).
- discicollis* H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 189.
 LUZON, Laguna, Los Baños (*coll. Baker*).
- fontanus* KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 86.
 LUZON, Laguna, Los Baños (*coll. Baker*).
- inquinatus* SAUND., Trans. Ent. Soc. London (1874), 326.
 MINDANAO.
- luzonicus* KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 84.
 LUZON, Laguna, Los Baños (*coll. Baker*).
- monticola* KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 85.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).
- nigrocinctus* SAUND., Trans. Ent. Soc. London (1874), 325.
 LUZON, Laguna, Los Baños (*coll. Baker*).
- occipitalis* ESCHSCH.,*† Entom. (1822), 79.
 LUZON, Manila (459, 1589, 2335, 2767, 2798, 3844, 6396, *Banks, Schultze*): NEGROS, Occidental Negros, Bago (6303, *Banks*).
- ornatus* H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 155.
 LUZON: BABUYANES.
- pilicauda* SAUND., Trans. Ent. Soc. London (1874), 326.
- pulcher* SAUND., Trans. Ent. Soc. London (1874), 327.
- rubifrons* H. DEYR., Ann. Soc. Ent. Belg. (1864), 8, 164.
- semperi* SAUND., Trans. Ent. Soc. London (1874), 324.
- striaticollis* KERREM., Ann. Soc. Ent. France (1892), 24.
 LUZON.
- vilis* SAUND.,† Trans. Ent. Soc. London (1874), 327.
 LUZON, Rizal, Montalban Gorge (5574, *Banks*).

Genus CYLINDROMORPHUS Kiesenwetter

- orientalis* KERREM., Ann. Soc. Ent. France (1892), 26.
 LUZON.

Genus APHANISTICUS Latreille

- bodongi* KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 88.
 LUZON, Laguna, Los Baños (*coll. Baker*).

- nigroaeneus* KERREM., † Mém. Soc. Ent. Belg. (1900), 42.
LUZON, Laguna, Los Baños (coll. Baker).

Genus **ENDELUS** Deyrolle

- bakeri* KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 88.
LUZON, Laguna, Los Baños (coll. Baker).
cornutus KERREM., Mém. Soc. Ent. Belg. (1900), 85.
LUZON, Laguna, Mount Maquiling (coll. Baker).

Genus **TRACHYS** Fabricius

- bakeri* KERREM., Phil. Journ. Sci., Sec. D (1914), 9, 90.
LUZON, Laguna, Los Baños (coll. Baker).
cornuta KERREM., † Phil. Journ. Sci., Sec. D (1914), 9, 89.
LUZON, Laguna, Los Baños (coll. Baker).
dubia SAUND., † Trans. Ent. Soc. London (1874), 328.
LUZON, Bataan, Lamac (9856, Curran).
formosana KERREM., Arch. Naturgesch. (1912), 209.
LUZON, Laguna, Los Baños (coll. Baker).
fraterna KERREM., Mém. Soc. Ent. Belg. (1900), 90.
LUZON.
luzonica KERREM., Mém. Soc. Ent. Belg. (1900), 91.
LUZON.
palawana KERREM., Ann. Soc. Ent. Belg. (1898), 92.
PALAWAN.
princeps SAUND., Trans. Ent. Soc. London (1874), 328.
LUZON.
rufescens KERREM., Ann. Soc. Ent. France (1892), 25.
LUZON.
viridula KERREM., Ann. Soc. Ent. France (1892), 25.
LUZON.

EUCNEMIDÆ

Genus **FORNAX** Castelnau

- dircaeoides* FLEUT., Ann. Soc. Ent. Belg. (1897), 252.
morosus BONV., Ann. Soc. Ent. France (1870), Pl. 13, figs. 6, 7.
LUZON, Laguna, Los Baños (coll. Baker).

Genus **SEMNODEMA** Bonvouloir

- bakeri* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 22, fig. 3.
LUZON, Laguna, Mount Maquiling (coll. Baker).

Genus **GALBA** Guérin

- auricolor* BONV., † Ann. Soc. Ent. France (1870), 821, Pl. 39, fig. 8.
LUZON, Laguna, Los Baños (coll. Baker).

funebri CHEVR.,† Rev. Zool. (1856), 84; BONV., Ann. Soc. Ent. France (1870), 813, Pl. 39, fig. 4.

LUZON, Tayabas, Mauban (8731, Curran).

marmorata GUÉR.,† Voy. Coquille, Ent. (1830), 68, Pl. 2, fig. 3; BONV., Ann. Soc. Ent. France (1870), 811.

MINDANAO, Agusan River (13696, F. Worcester).

sericata CHEVR.,† Rev. Zool. (1856), 86; BONV., Ann. Soc. Ent. France (1870), 816, Pl. 39, fig. 5.

albiventris CHEVR., Rev. Zool. (1856), 85.

murina DEJ., Cat., 3 ed. (1837), 95.

LUZON, Laguna, Los Baños (coll. Baker).

Genus *MACROSCYTHON* Fleutiaux

balabakensis FLEUT., Ann. Soc. Ent. Belg. (1912), 302.

BALABAC.

ELATERIDÆ

Genus *AGRYPNUS* Eschscholtz

bifoveatus CAND.,† Mon. Elat. (1857), 1, 41; Rev. Mon. Elat. (1874), 3; FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 441.

LUZON, Manila (78, 2878, 4513, Schultze; 192, 362, 2462, Banks; 1962, 3544, 10834, McGregor); Tayabas (8899, Curran); Cagayan, Tuguegarao (4581, Williamson): CEBU, Toledo (6810, McGregor).

javanus CAND.,† Mon. Elat. (1857), 1, 44.

LUZON, Tarlac, Pura (363, Fernandez), Anao (1438, Fernandez): Ticao (1179, McGregor).

ponderatus CAND., Elat. Nouv. (1889), 4, 5.

PALAWAN, Mount Salacot (13020, Lamb).

robustus FLEUT., Bull. Ann. Soc. Ent. France (1902), 163.

CEBU, Toledo (7429, McGregor).

tomentosus FABR., Ent. Syst. Suppl. (1791), 130.

PALAWAN, Iwahig (13274, Lamb).

Genus *ADELOCERA* Latreille

luzonica CAND., Ann. Soc. Ent. Belg. (1875), 5.

LUZON.

modesta BOISD., Voy. de l'Astrolabe (1832), 108.

modesta var. *tesselata* CAND., Ann. Soc. Ent. Belg. (1895), 6.

Genus *LACON* Castelnau

apodixus CAND.,† Elat. Nouv. (1868), 1, 9.

LUZON, Cagayan, Tautit (11823, D. C. Worcester): CAMIGUIN, Babuyan (7799, McGregor): MINDORO, Bongabon (8604, Schultze).

cervinus ERICHS.,† Beitr. Zool. Meigen's Reise Act. Leop. Carl. (1834), 1, 230; CAND., Rev. Mon. Elat. (1874), 78; FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 441.

LUZON, Manila (3322, Banks); Bataan, Lamao (9142, Schultze); Benguet (1191, 1478, 1493, 1649, 16249, McGregor): CALAYAN, Babuyan (659, McGregor).

dorcinus CAND.,† Ann. Soc. Ent. Belg. (1875), 6.
BOHOL.

intermedius SCHWARZ,† Stett. Ent. Zeitg. (1902), 199.
LUZON, Tayabas, Baler (11620, *D. C. Worcester*): CEBU, Toledo (7428, *McGregor*).

molitor CAND., Ann. Soc. Ent. Belg. (1875), 6.
PALAWAN, Iwahig (13275, *Lamb*), Bacuit (11796, *Weber*).

spurcus CAND., Elat. Nouv. (1868), 1, 11.
LUZON.

trifasciatus CAND., Elat. Nouv. (1868), 1, 10.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus MERISTHUS Candèze

nigritulus CAND., Elat. Nouv. (1892), 5, 10; FLEUT., Ann. Soc. Ent. Belg. (1895), 167; Phil. Journ. Sci., Sec. D (1914), 9, 441.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus ALAUS Eschscholtz

brevipennis CAND., Ann. Soc. Ent. Belg. (1875), 120.
MINDANAO.

lacteus FABR., Syst. Eleuth. (1791), 2, 230.
MINDANAO.

modigliani CAND.,† Ann. Mus. Civ. Genova (1892), 797.
SIBUYAN (1911, *McGregor*).

nebulosus CAND., Mon. Elat. (1875), 1, 232.
LUZON: LEYTE: BOHOL: MINDANAO.

pantherinus CAND., Elat. (1880), 3, 16.
MINDANAO.

podargus CAND., Revis. Mon. Elat. (1874), 125.
BOHOL.

scytale CAND.,† Mon. Elat. (1857), 1, 228; Ann. Mus. Civ. Genova (1878), 106; FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 441.
LUZON, Laguna, San Antonio (11477, *Foxworthy*), Mount Maquiling (*coll. Baker*).

semperi CAND., Ann. Soc. Ent. Belg. (1875), 120.
MINDANAO.

superbus CAND., Bull. Soc. Ent. Belg. (1875), 18.
MINDANAO.

Genus CAMPSOSTERNUS Latreille

eschscholtzi HOPE, Trans. Ent. Soc. London (1843), 3, 292.
LUZON.

proteus HOPE,† Trans. Ent. Soc. London (1843), 3, 291.
LUZON, Manila (3538, *Brown*).

rutilans CHEVR., Rev. Zool. (1841), 222.

- rutilans* var. *sumptuosus* HOPE,† Trans. Ent. Soc. London (1843), 3, 288.
 LUZON, Bataan, Lamac (16271, *Curran*): PALAWAN, Iwahig (10718,
 10843, *Schultze*; 12548, *Lamb*).

Genus OXYNOPTERUS Hope

- audouini* HOPE,† Proc. Zool. Soc. London (1842), 77.
 LUZON, Manila (14808, *Otto*); Laguna, Los Baños (12552, *Ledyard*).
cumingi HOPE, Proc. Zool. Soc. London (1842), 77; WESTW., Cab. Orient.
 Ent. (1848), 71, Pl. 35, fig. 5.
 PALAWAN, Iwahig (16197, *Weber*).
mucronatus OLIV., Journ. Hist. Nat. (1792), 1, 262, Pl. 14, fig. 1.

Genus PSEPHUS Candèze

- incaustus* CAND., Elat. Nouv. (1896), 6, 26.
orientalis CAND., Ann. Soc. Ent. Belg. (1900), 83.
philippinensis CAND., C. R. Soc. Ent. Belg. (1875), 18.

Genus SIMODACTYLUS Candèze

- cinnamomeus* BOISD., Voy. de l'Astrolabe (1832), 106.
chazali LE GUILLOU, Rev. Zool. (1844), 220.
subcastaneus FAIRM., Rev. Zool. (1849), 35.
sericans FAIRM., Rev. Zool. (1849), 35 and 356.
pulcherrimus CAND., Elat. Nouv. (1889), 4, 23.

Genus AEOLUS Eschscholtz

- beccarii* CAND., Ann. Mus. Civ. Genova (1878), 12, 117; FLEUT., Phil.
 Journ. Sci., Sec. D (1914), 9, 441.
 LUZON, Laguna, Los Baños (17902, *Baker*).

Genus HETERODERES Latreille

- drasterioides* FLEUT., Ann. Soc. Ent. France (1894), 686; Phil. Journ.
 Sci., Sec. D (1914), 9, 442.
 LUZON, Laguna, Los Baños (*coll. Baker*).
minusculus CAND., Elat. Nouv. (1878), 2, 23.
multilineatus CAND., Ann. Mus. Civ. Genova (1878), 12, 118.
 LUZON, Manila (8447, *Guerrero*); Rizal, Montalban (5334, *Banks*).
triangularis ESCHSCH., Entom. (1822), 1, 73.
infuscatus MOTSCH., Bull. Acad. Sci. Petersb. (1860), 518.
 LUZON, Manila (8446, *Guerrero*).

Genus DRASTERIUS Eschscholtz

- insularis* CAND., Bull. Soc. Ent. Belg. (1875), 121.
 BOHOL.
sulcatulus CAND., Mon. Elat. (1859), 2, 427.
 LUZON, Laguna, Los Baños (*coll. Baker*).

Genus *ELATER* Linnæus

conspurcatus CAND., *Elat. Nouv.* (1896), 6, 34.

Genus *MEGAPENTHES* Kiesenwetter

angulosus CAND., *Bull. Soc. Ent. Belg.* (1875), 122.

LUZON, Laguna, Los Baños (*coll. Baker*).

congestus CAND., *Elat. Nouv.* (1896), 6, 42.

BALABAC.

diploconoides CAND., *Bull. Soc. Ent. Belg.* (1875), 9.

fulvus FLEUT., *Phil. Journ. Sci., Sec. D* (1914), 9, 443.

LUZON, Laguna, Los Baños (*coll. Baker*).

inconditus CAND., *Mon. Elat.* (1859), 2, 504; FLEUT., *Phil. Journ. Sci., Sec. D* (1914), 9, 442.

LUZON, Laguna, Los Baños (17898, *Baker*).

inflatus CAND., *Bull. Soc. Ent. Belg.* (1875), 9.

LUZON, Laguna, Los Baños (*coll. Baker*).

junceus CAND., *Mém. Ac. Belg.* (1865), 17, 30; *Bull. Soc. Ent. Belg.* (1875), 122; *Ann. Mus. Civ. Genova* (1878), 122.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

luzonicus FLEUT., *Phil. Journ. Sci., Sec. D* (1914), 9, 442.

LUZON, Laguna, Los Baños (*coll. Baker*).

maceratus CAND., *Elat. Nouv.* (1896), 6, 42.

BALABAC.

nigricornis CAND., *Bull. Soc. Ent. Belg.* (1875), 9.

LUZON.

opacipennis CAND., *Bull. Soc. Ent. Belg.* (1875), 9.

Genus *MELANOXANTHUS* Eschscholtz

affinis FLEUT., *Phil. Journ. Sci., Sec. D* (1914), 9, 444.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

approximatus CAND., *Bull. Soc. Ent. Belg.* (1875), 123.

LUZON, Laguna, Los Baños (*coll. Baker*).

ater FLEUT., *Phil. Journ. Sci., Sec. D* (1914), 9, 445.

LUZON, Laguna, Los Baños (*coll. Baker*).

bakeri FLEUT., *Phil. Journ. Sci., Sec. D* (1914), 9, 443.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

bipartitus CAND., *Bull. Soc. Ent. Belg.* (1875), 123.

MINDANAO.

comes CAND., *Elat. Nouv.* (1896), 6, 43.

BALABAC.

crucifer FLEUT., *Phil. Journ. Sci., Sec. D* (1914), 9, 445.

LUZON, Laguna, Los Baños (*coll. Baker*).

decemguttatus CAND., *Bull. Soc. Ent. Belg.* (1875), 123.

- exclamationis** CAND., Bull. Soc. Ent. Belg. (1875), 123.
- hemionus** CAND., Elat. Nouv. (1892), 5, 38.
MINDANAO.
- infimus** CAND., Bull. Soc. Ent. Belg. (1875), 123; FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 445.
LUZON, Laguna, Los Baños (*coll. Baker*).
- luzonicus** FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 444.
LUZON, Laguna, Mount Maquiling (*coll. Baker*).
- melanocephalus** FABR., † Spec. Ins. (1781), 1, 272, Pl. 7, figs. 12, 12a.
LUZON, Manila (8121, *Paras*): NEGROS, Occidental Negros, Maaao (365, *Banks*): BASILAN (6776, *McGregor*).
- minutus** CAND., Elat. Nouv. (1895), 6, 44.
BALABAC.
- palliatu**s CAND., Ann. Mus. Stor. Nat. Genova (1892), 799.
LUZON.
- promecus** CAND., Elat. Nouv. (1868), 1, 36.
LUZON, Laguna, Mount Maquiling (17903, *Baker*).
- recreatus** CAND., Elat. Nouv. (1895), 6, 46.
BALABAC.
- rhomboidalus** CAND., Bull. Soc. Ent. Belg. (1875), 123.
- sexguttatus** CAND., Ann. Mus. Stor. Nat. Genova (1892), 799.
LUZON.
- sextus** CAND., Bull. Soc. Ent. Belg. (1875), 123.
- singularis** CAND., Elat. Nouv. (1895), 6, 46.
BALABAC.
- terminatus** CAND., Bull. Soc. Ent. Belg. (1875), 123.
- zebra** WIEDEM., † Zool. Mag. (1823), 2, 107.
LUZON, Laguna, Los Baños (3942, *Schultze*), Calauang (14156, *McGregor*): MINDORO, Baco River (3215, *McGregor*).

Genus ANCHASTUS LeConte

- rufangulus** CAND., Bull. Soc. Ent. Belg. (1875), 121.
MINDANAO.
- unicolor** CAND., Elat. Nouv. (1881), 3, 61; FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 446.
LUZON, Laguna, Los Baños (*coll. Baker*).
- vittatus** FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 445.
LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus HYPNOIDUS Stephens

- bakeri** FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 446.
LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus **CARDIOPHORUS** Eschscholtz

- bakeri** FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 446.
elegans CAND., Ann. Mus. Civ. Genova (1878), 132.
 LUZON, Laguna, Los Baños (*coll. Baker*).
fasciatus CAND., Bull. Soc. Ent. Belg. (1875), 124.
 LUZON.
inconditus CAND., Bull. Soc. Ent. Belg. (1875), 125.
 LUZON.
luzonicus ESCHSCH., Thom. Arch. Ent. (1829), 2, (1), 34.
 LUZON.
spennendus CAND., Bull. Soc. Ent. Belg. (1875), 125.
 MINDANAO.
unicolor CAND., Bull. Soc. Ent. Belg. (1875), 124.

Genus **CARDIOTARSUS** Eschscholtz

- fallaciosus** CAND., Elat. Nouv. (1896), 6, 59.
 PALAWAN.

Genus **DIPLOCONUS** Candèze

- angusticollis** CAND., Bull. Soc. Ent. Belg. (1875), 126.
 LUZON, Laguna, Los Baños (*coll. Baker*).
bakewelli FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 447.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).
cantharus CAND., Elat. Nouv. (1892), 5, 48.
cervinus CAND.,† Bull. Soc. Ent. Belg. (1875), 125.
 LUZON, Benguet, Irisan (1193, *McGregor*).
ciprinus CAND., Mém. Ac. Belg. (1865), 17, 47.
 LUZON.
consanguineus CAND., Mon. Elat. (1860), 3, 293.
erythronotus CAND., Elat. Nouv. (1878), 1, 46.
 LUZON, Laguna, Los Baños (17897, *Baker*).
erythropus CAND., Elat. Nouv. (1868), 1, 46.
obscurus FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 447.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).
philippinensis FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 447.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).
politus CAND., Bull. Soc. Ent. Belg. (1875), 126.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).
umbilicatus CAND., Bull. Soc. Ent. Belg. (1875), 125.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus **MELANOTUS** Eschscholtz

- ebenus** CAND.,† Mon. Elat. (1860), 3, 335; FLEUT., Phil. Journ. Sci., Sec. D (1914), 9, 448.
 LUZON, Tarlac (360, *Fernandez*); Isabela, San Luis (15560, *Jones*):
 BATAN, Batanes (7748, *McGregor*).

interjectus CAND., *Elat. Nouv.* (1895), 6, 65.

BALABAC.

phlogosus CAND., *Mon. Elat.* (1860), 3, 325.

LUZON.

pisciculus CAND., *Mon. Elat.* (1860), 3, 330.

LUZON.

scribanus CAND., *Elat. Nouv.* (1892), 5, 48; FLEUT., *Phil. Journ. Sci.*,
Sec. D (1914), 9, 448.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus **PRISTILOPHUS** Germar

luzonicus CAND., *Elat. Nouv.* (1864), 1, 53; C. R. Soc. Ent. Belg. (1875),
126.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus **PARALLELOSTETHUS** Schwarz

conicipennis SCHWARZ, *Stett. Ent. Zeitg.* (1902), 296.

Genus **LUDIUS** Eschscholtz

hirsutus CAND., C. R. Soc. Ent. Belg. (1875), 126; FLEUT., *Phil. Journ.*
Sci., Sec. D (1914), 9, 448.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus **APHANOBIUS** Eschscholtz

longicollis ESCHSCH., *Thom. Arch. Ent.* (1822), 2, (1), 33.

longithorax WIEDEM., *Zool. Mag.* (1823), 2, 186.

BALABAC.

longus CAND., *Mon. Elat.* (1863), 4, 322.

Genus **LUDIGENUS** Candèze

politus CAND., † *Mon. Elat.* (1863), 4, 326.

NEGROS, Mount Canlaon (6850, *Banks*): SIBUYAN (1912, *McGregor*):
PALAWAN, Bacuit (11795, 16314, *Weber*).

Genus **AGONISCHIUS** Candèze

balabakensis CAND., *Elat. Nouv.* (1895), 6, 77.

BALABAC.

basalis CAND., C. R. Soc. Ent. Belg. (1875), 127.

LUZON.

brevicollis CAND., C. R. Soc. Ent. Belg. (1875), 127.

LUZON.

fusiformis CAND., C. R. Soc. Ent. Belg. (1875), 127.

MINDANAO.

marginatus CAND., C. R. Soc. Ent. Belg. (1875), 127.

MINDANAO.

Genus GLYPHONIX Candèze

dissimilis CAND., *Elat. Nouv.* (1895), 6, 78.

BALABAC.

erraticus CAND., *C. R. Soc. Ent. Belg.* (1875), 127; *FLEUT., Phil. Journ. Sci., Sec. D* (1914), 9, 449.

erraticus var. *attonitus* CAND., *Elat. Nouv.* (1895), 6, 78.

LUZON, Laguna, Los Baños (*coll. Baker*).

falsus CAND., *Elat. Nouv.* (1895), 6, 78.

BALABAC.

feneus CAND., *Elat. Nouv.* (1895), 6, 78.

BALABAC.

frontalis CAND., *Notes Leyden Mus.* (1880), 2, 5.

posticus CAND., *C. R. Soc. Ent. Belg.* (1875), 127; *FLEUT., Phil. Journ. Sci., Sec. D* (1914), 9, 449.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus HEMIOPS Castelnau

semperi CAND.,† *Elat. Nouv.* (1878), 2, 53.

LUZON, Laguna, Los Baños (17896, *Baker*); Rizal, Montalban Gorge (*Schultze*): NEGROS, Occidental Negros, Mount Canlaon (12905, *Banks*).

CEBRIONIDÆ

Genus CEBRIORHIPIS Chevrolat

elongatus CHEVR., *Ann. Soc. Ent. France* (1874), 4, 528; DALLA TORRE, *Wytsm. Gen. Ins.* (1912), fasc. 127, 12, fig. 4.

PALAWAN, Bacuit (16321, *Weber*).

TENEBRIONIDÆ

STENOSINÆ

Genus ETHAS Pascoe

carinatus ESCHSCH., *Zool. Atl.* (1831), 4, 12; REITT., *Deutsche Ent. Zeitschr.* (1886), 30, 101.

stenosides PASC., *Journ. Ent.* (1862), 1, 324.

OPATRINÆ

Genus MESOMORPHUS Seidlitz

villiger BLANCH., *Voy. Pôle Sud* (1853), 4, 154, Pl. 10, fig. 15; FAIRM., *Ann. Soc. Ent. Belg.* (1894), 33, 20; *GEB., Phil. Journ. Sci., Sec. D* (1913), 8, 373.

asperulus FAIRM., *Ann. Soc. Ent. Belg.* (1898), 42, 234.

dermestoides REITT., *Best. Tab.* (1904), 53, 74.

dispersus CHAMP., *Trans. Ent. Soc. London* (1894), 361.

mustelinus FAIRM., *Notes Leyden Mus.* (1882), 4, 221.

puberulus FAUV., *Bull. Soc. Linn. Norm.* (1867), 1, 187.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **SCLERON** Hope

- ferrugineum** FABR.,† Syst. Eleuth. (1801), 1, 118; REITT., Best. Tab. (1904), 53, 125; GEB., Deutsche Ent. Zeitschr. (1906), 234; Phil. Journ. Sci., Sec. D (1913), 8, 373.
denticolle FAIRM., Notes Leyden Mus. (1882), 4, 219.
discicollis REITT., Best. Tab. (1904), 53, 126.
tuberculatum BESS., Nouv. Mém. Mosc. (1832), 2, 18.
LUZON, Manila (1742, 12145, *Schultze*; 2972, *Banks*).

Genus **CHEMODASUS** Gebien

- rectangulus** GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 374.
LUZON, Batangas, Taal Volcano (8834, *Banks*).

Genus **GONOCEPHALUM** Chevrolat

- acutangulum** FAIRM., Notes Leyden Mus. (1882), 4, 220.
PALAWAN.
adpressum GERM.,† Ins. Spec. Nov. (1824), 145.
LUZON, Batangas, Taal Volcano (17043, *Banks*).
bilineatum WALK., Ann. & Mag. Nat. Hist. (1858), 2, 284.
LUZON, Laguna, Los Baños (*coll. Baker*).
depressum FABR.,*† Ent. Syst. Suppl. (1798), 41; STEV., Nouv. Mém. Mosc. (1829), 1, 95; GEB., Deutsche Ent. Zeitschr. (1906), 213; Phil. Journ. Sci., Sec. D (1913), 8, 376.
LUZON, Manila (1596, *Schultze*); Benguet, Trinidad (8255, *Banks*):
NEGROS, Occidental Negros, Bago (1607, *Banks*): **SIBUYAN** (7663, *McGregor*).

BOLITOPHAGINÆ

Genus **BRADYMERUS** Perroud

- aequecostatus** FAIRM., Notes Leyden Mus. (1893), 15, 20; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 379.
PALAWAN.
alternicostis GEB., Phil. Journ. Sci., Sec. D (1913), 8, 377.
LUZON, Laguna, Mount Banahao (7206, *Banks*).
caeruleipennis GEB., Phil. Journ. Sci., Sec. D (1913), 8, 380.
LUZON, Benguet, Mount Pulog (10257, *Curran*).
carinatus FAIRM., Ann. Soc. Ent. France (1886), 188; Notes Leyden Mus. (1897), 19, 218; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 379.
corinthius FAIRM., Notes Leyden Mus. (1897), 18, 229.
CEBU, Toledo (6758, *McGregor*).
crenulicollis FAIRM., Notes Leyden Mus. (1882), 4, 221; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 379.
MINDORO, Bongabon (8412, *Schultze*).
elongatus GEB., Phil. Journ. Sci., Sec. D (1913), 8, 376.
LUZON, Benguet, Pauai (11196, *McGregor*).
ferruginipes FAIRM., Notes Leyden Mus. (1897), 18, 229.

impressicollis GEB., Phil. Journ. Sci., Sec. D (1913), 8, 378.

LUZON, Benguet, Baguio (9923, *Curran*).

violaceus PASC.,† Ann. & Mag. Nat. Hist. (1883), V, 11, 437; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 379.

CAMIGUIN, Babuyanes (7814, *McGregor*).

Genus **BYRSAX** Pascoe

satanas GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 381.

LUZON, Cagayan, Aparri (10585, *Curran*).

Genus **ATASTHALUS** Pascoe

serratus GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 383.

NEGROS, Occidental Negros, Bago (113, 2851, *Banks*).

DIAPERINÆ

Genus **PLATYDEMA** Castelnau et Brulle

annamitum FAIRM., Ann. Soc. Ent. France (1893), 24.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **CEROPRIA** Castelnau et Brulle

dolorosa FAIRM., Notes Leyden Mus. (1883), 5, 34; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 385.

MINDORO.

induta WIEDEM.,† Zool. Mag. (1819), 3, 1, 164; CAST. et BRULLE, Ann. Sci. Nat. (1831), 23, 399.

LUZON, Rizal, Montalban Gorge (5468, *Banks*); Bataan, Lamac (9860, *Curran*).

subocellata CAST., Ann. Sci. Nat. (1831), 23, 398; HAR., Stett. Ent. Zeitg. (1877), 39, 353; LEWIS, Ann. & Mag. Nat. Hist. (1894), 399; CAND., Mém. Soc. Roy. Liège (1861), 369.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **HEMICERA** Castelnau et Brulle

bivittata GEB., Phil. Journ. Sci., Sec. D (1913), 8, 385.

LUZON: NEGROS.

caudata GEB., Phil. Journ. Sci., Sec. D (1913), 8, 387.

LUZON.

ULOMINÆ

Genus **TAGALUS** Gebien

impressicollis GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 389.

LUZON, Laguna, Mount Banahao (7207, *Banks*).

schultzei GEB., Phil. Journ. Sci., Sec. D (1913), 8, 390.

LUZON, Benguet, Mount Pulog (10400, *Curran*).

Genus **BOLITRIUM** Gebien

crenulicollis GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 391.

NEGROS, Occidental Negros, Bago (1599, *Banks*).

Genus **TRIBOLIUM** MacLeay

- ferrugineum* FABR.,*† Spec. Ins. (1781), 1, 324; Syst. Eleuth. (1801), 1, 155; OLIV., Ent. (1795), 3, 57, 18, Pl. 2, fig. 24; HERBST, Käfer (1797), 7, 276.
bifoveolatum DUFT., Ins. Austr. (1812), 2, 304.
castaneum HERBST, Käfer (1797), 7, 282, Pl. 112, fig. 3.
navale HERBST, Käfer (1792), 4, 138.
rubens CAST., Hist. Nat. (1840), 2, 220.
testaceum FABR., Ent. Syst. Suppl. (1798), 179.
 LUZON, Manila (1821, *Schultze*).

Genus **ULOMA** Castelnau

- contracta* FAIRM., Notes Leyden Mus. (1882), 4, 226; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 394.
 LUZON.
fracticolis GEB., Phil. Journ. Sci., Sec. D (1913), 8, 393.
 LUZON, Benguet, Mount Pulog (10274, *Curran*).
orientalis CAST.,† Hist. Nat. (1840), 2, 220.
denticornis FAIRM., Notes Leyden Mus. (1882), 4, 225.
retusa FABR., Syst. Eleuth. (1801), 2, 150; GEB., Deutsche Ent. Zeitschr. (1906), 220; Phil. Journ. Sci., Sec. D (1913), 8, 392.
 MINDORO, Bongabon (8605, *Schultze*); NEGROS, Occidental Negros, Pulupandan (10604, *Banks*).
rufilabris FAIRM., Notes Leyden Mus. (1882), 4, 226.

Genus **ALPHITOBIOUS** Stephens

- diaperinus* PANZ., In. Germ. (1797), 37, 16; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 394.
 LUZON.
piceus OLIV.,† Encyl. Méth. (1792), 7, 50; Ent. (1795), 3, 58, 17, Pl. 2, fig. 13.
fagi CURT., Brit. Ent. (1831), 8, 303.
picipes STEPH., Ill. Brit. Ent. (1832), 5, 11.
granivorus MULS. and GOD., Ann. Soc. Linn. Lyon (1868), 16, 288.
striatulus FAIRM., Ann. Soc. Ent. France (1869), 231; FAUV., Rev. d'Ent. (1904), 23, 185.
 LUZON, Manila (11428, *Schultze*).
quadrимaculatus GEB., Phil. Journ. Sci., Sec. D (1913), 8, 394.
 NEGROS: PALAWAN.

Genus **EUTOCHIA** LeConte

- lateralis* BOHEM.,† Res. Eugen. (1858), 94.
picescens FAIRM., Bull. Soc. Ent. Belg. (1885), 109.
 LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **DOLIEMA** Pascoe

- platisoides* PASC., Journ. Ent. (1860), 1, 50, Pl. 3, fig. 8.

spinicollis FAIRM., Ann. Soc. Ent. France (1893), 27.

spinicollis var. *suturalis* FAIRM., Ann. Soc. Ent. France (1893), 27.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus *HYPOPHLOEUS* Fabricius

analis GEB., Phil. Journ. Sci., Sec. D (1913), 8, 395.
NEGROS.

COSSYPHINÆ

Genus *COSSYPHUS* Olivier

striatus WIEDEM., † Zool. Mag. (1823), 2, 1, 81; BREME, Mon. Cossyph. (1846), 2, 26, Pl. 3, fig. 4.

LUZON, Manila (2853, *Schultze*; 8105, *Banks*).

TENEBRIONINÆ

Genus *SETENIS* Motschulsky

aequatorialis BLANCH., † Voy. Pôle Sud (1853), 4, 161, Pl. 11, fig. 11;
GEB., Phil. Journ. Sci., Sec. D (1913), 8, 402.

podagra FAIRM., Notes Leyden Mus. (1882), 4, 229.

LUZON, Benguet, Irisan (1645, *McGregor*); Nueva Vizcaya, Bayombong (9899, *Curran*): NEGROS, Occidental Negros, Mount Canlaon (6852, *Banks*).

manillarum FAIRM., Ann. Soc. Ent. France (1886), 188; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 402.

TICAO (1468, *McGregor*).

penciligera GEB., Col. Cat. (1911), pars 28, 445.

brevicornis SCHAUF., Horae Soc. Ent. Ross. (1887), 21, 134.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus *PEDIRIS* Motschulsky

longipes MOTSCH., Bull. Mosc. (1872), 45, 23; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 402.

MINDANAO.

sulcigera BOISD., † Voy. de l'Astrolabe (1835), 256, Pl. 9, fig. 11; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 401.

LUZON, Bataan, Lamao (6545, *Curran*); Benguet, Irisan (1266, *McGregor*): MINDORO, Baco River (3161, *McGregor*): TICAO (1469, *McGregor*): MINDANAO, Camp Keithley (7286, *Elemens*).

Genus *ENCYALESTHUS* Motschulsky

nitidipennis FAIRM., † Ann. Soc. Ent. France (1898), 394; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 403.

LUZON, Benguet, Irisan (1268, *McGregor*).

striatus GEB., † Phil. Journ. Sci., Sec. D (1913), 8, 404.

LUZON, Laguna, Magdalena (1765, *Schultze*): NEGROS, Occidental Negros, Mount Canlaon (6853, *Banks*), Cadiz (16307, *Curran*).

Genus **DEROSPHAERUS** Thomson

rotundicollis CAST., Hist. Nat. (1840), 2, 213; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 403.

simillimus FAIRM., Ann. Soc. Ent. France (1886), 188.

MINDORO, Magaran (10764, *Schultze*).

Genus **TENEBRIO** Linnæus

molitor LINN., Syst. Nat., ed. 10 (1758), 1, 417; ed. 12 (1767), 1, 674.

obscurus FABR., Ent. Syst. (1792), 1, 111; Syst. Eleuth. (1801), 1, 146;

PANZ., Ent. Germ. (1795), 40.

Genus **CATAPIESTUS** Perty

mediocris GUÉR.,† Rev. Zool. (1841), 124; FAIRM., Ann. Soc. Ent. France (1888), 357; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 405.

LUZON, Benguet, Irisan (1577, *McGregor*).

Genus **TOXICUM** Latreille

flavofemoratum REDT., Reise Novara, Zool. (1868), 2, 126; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 397.

planicolle GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 398.

LUZON, Benguet, Mount Pulog (10251, *Curran*).

quadricorne FABR.,† Syst. Eleuth. (1801), 1, 153; CAST., Hist. Nat. (1840), 2, 217; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 396.

LUZON, Benguet, Irisan (1578, *McGregor*); Bataan, Lamao (6547, *Curran*): NEGROS, Occidental Negros, Mount Canlaon (6854, *Banks*).

ramiferum GEB., Phil. Journ. Sci., Sec. D (1913), 8, 397.

LUZON, Pampanga, Mount Arayat (2982, *Williamson*).

Genus **ANTHRACIAS** Redtenbacher

elongatus SCHAUF.,† Horae Soc. Ent. Ross. (1885), 19, 202; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 401.

TICAO (9610, *McGregor*).

HETEROTARSINÆ

Genus **LYPROPS** Hope

luzonicus GEB., Phil. Journ. Sci., Sec. D (1913), 8, 405.

PALAWAN, Bacuit (12361, *Weber*).

CYPHALEINÆ

Genus **ARTACTES** Pascoe

latreillei CAST. et BRULLE, Ann. Sci. Natur. (1831), 23, 405, fig. 6a; CAST., Hist. Nat. (1840), 2, 224.

LUZON.

CNODALONINÆ

Genus **SCOTAEUS** Hope

seriatopunctatus HELLER, Abh. Mus. Dresden (1899), 7, 8.

LUZON, Benguet, Irisan (1272, 1483, *McGregor*).

Genus **PLATYCREPIS** Lacordaire

violaceus LACORD., Gen. Col. (1859), 5, 2, 418; KRAATZ, Deutsche Ent. Zeitschr. (1880), 103.

PALAWAN.

Genus **EUCYRTUS** Pascoe

acutangulus GEB., Phil. Journ. Sci., Sec. D (1913), 8, 416.

LUZON, Benguet, Mount Pulog (10272, *Curran*).

clypealis GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 415.

NEGROS, Occidental Negros, Bago (1390, 1608, *Banks*).

excellens GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 417.

LUZON, Manila (8813, *Schultze*); Bataan, Lamao (6211, *Curran*).

gloriosus KRAATZ, Deutsche Ent. Zeitschr. (1880), 100.

PALAWAN, Iwahig (10746, *Schultze*).

lisae KRAATZ, Deutsche Ent. Zeitschr. (1880), 105.

nigripes KRAATZ, Deutsche Ent. Zeitschr. (1880), 100.

LUZON.

ovipennis GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 410.

LUZON, Benguet, Mount Pulog (10256, *Curran*).

subcostatus FAIRM., Notes Leyden Mus. (1893), 15, 44; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 416.

NEGROS, Occidental Negros, Bago (1610, *Banks*).

Genus **OEDEMUTES** Pascoe

physopterus GEB., Phil. Journ. Sci., Sec. D (1913), 8, 406.

LUZON, Ambos Camarines (9093, *Curran*).

pretiosus PASC., Ann. & Mag. Nat. Hist. (1871), IV, 8, 355.

CALAYAN, Babuyan (646, *McGregor*).

purpuratus PASC., Ann. & Mag. Nat. Hist. (1871), IV, 8, 355.

LUZON.

varicolor GEB.,† Phil. Journ. Sci., Sec. D (1913), 8, 407.

ROMBLON (1983, *McGregor*); SIBUYAN (7670, *McGregor*): SIKUIJOR (8960, *Celestino*).

viridulus KRAATZ, Deutsche Ent. Zeitschr. (1880), 114.

Genus **PSEUDEUMOLPUS** Kraatz

iridipennis GEB., Phil. Journ. Sci., Sec. D (1913), 8, 408.

MINDANAO, Zamboanga, Port Banga (8713, *Hutchinson*).

polychromus GEB., Phil. Journ. Sci., Sec. D (1913), 8, 409.

MINDANAO, Camp Keithley (7305, *Clemens*).

superbus KRAATZ, Deutsche Ent. Zeitschr. (1880), 114.

LUZON.

Genus **PSEUDABAX** Kraatz

chalcus GEB., Phil. Journ. Sci., Sec. D (1913), 8, 413.

LUZON, Benguet, Irisan (1486, *McGregor*): MINDORO, Mount Halcon (6693, *Merrill*).

formosus KRAATZ, Deutsche Ent. Zeitschr. (1880), 108; GEB., Phil. Journ. Sci., Sec. D (1913), 8, 410.

frater GEB., Phil. Journ. Sci., Sec. D (1913), 8, 412.
LUZON, Laguna, Santa Maria (8632, *Curran*).

nigricollis GEB., Phil. Journ. Sci., Sec. D (1913), 8, 411.
LUZON.

opacus KRAATZ, Deutsche Ent. Zeitschr. (1880), 109.

purpureomicans GEB., Phil. Journ. Sci., Sec. D (1913), 8, 410.
CEBU, Toledo (6778, *McGregor*).

HELOPINÆ

Genus **BARATUS** Fairmaire

crenulatus FAIRM., Notes Leyden Mus. (1896), 18, 234.

RHYSOPAUSINÆ

Genus **EUGLYPTONOTUS** Gestro

magrettii GESTRO, Ann. Mus. Civ. Genova (1900), 21, 744.
SAMAR.

AMARYGMINÆ

Genus **AMARYGMUS** Dalman

angustus GEB., Phil. Journ. Sci., Sec. D (1913), 8, 419.
LUZON.

callichromus FAIRM.,† Bull. Soc. Ent. France (1897), 70.
LUZON, Laguna, Magdalena (1756, *Schultze*).

cuprarius WEBER, Obs. Ent. (1801), 40; FABR., Syst. Eleuth. (1801), 1, 161;
DESM., Voy. La Bonite (1841), 1, 309, Pl. 2, figs. 21–22.

micans FABR., Ent. Syst. (1794), 4, App., 447; Syst. Eleuth. (1801), 1, 428;
DALM., Anal. Ent. (1823), 60; GEB., Deutsche Ent. Zeitschr. (1906), 225.

fulgiditessellatus BLANCH., Voy. Pôle Sud (1853), 4, 179, Pl. 12,
fig. 4.

varicolor FAIRM., Notes Leyden Mus. (1893), 15, 59.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **PLATOLENES** Gebien

rufipes GEB., Phil. Journ. Sci., Sec. D (1913), 8, 421.
LUZON, Benguet, Bued River (9882, *Curran*).

Genus **DIETYSUS** Pascoe

amplicollis FAIRM., Ann. Soc. Ent. France (1886), 189.

MINDORO, Magaran (10763, *Schultze*): PALAWAN, Iwahig (10774, 10899,
Schultze).

luzonicus FAIRM.,† Ann. Soc. Ent. France (1886), 189.

LUZON, Nueva Vizcaya, Bayombong (9900, *Curran*): PALAWAN, Iwahig
(10898, *Schultze*).

STRONGYLIINÆ

Genus *ENGANODIA* Fairmaire

sanguinicrus FAIRM., Ann. Soc. Ent. France (1898), 398.

Genus *STRONGYLUM* Kirby

ambiguum MÄKL., Act. Fenn. (1864), 335, Pl. 2, fig. 21.
PALAWAN.

cupreolineatum GEB., Phil. Journ. Sci., Sec. D (1913), 8, 428.
MINDORO, Baco River (3160, *McGregor*).

elegantissimum GEB., Phil. Journ. Sci., Sec. D (1913), 8, 427.

erythrocephalum FABR., † Syst. Eleuth. (1801), 1, 156; ILLIG., Mag. (1802),
1, 343; MÄKL., Act. Fenn. (1863), 548.

rubripes MÄKL., Act. Fenn. (1864), 350.
LUZON, Manila (3346, *Banks*).

foveolatum MÄKL., Act. Fenn. (1864), 334.

foveostriatum GEB., Phil. Journ. Sci., Sec. D (1913), 8, 425.
PALAWAN, Iwahig (10745, *Schultze*), Mount Salacot (13012, *Lamb*).

gravidum MÄKL., Act. Fenn. (1864), 364, Pl. 3, fig. 24.
TICAO (6538, *McGregor*).

insolitum GEB., Phil. Journ. Sci., Sec. D (1913), 8, 429.
NEGROS, Occidental Negros, Bago (1688, *Banks*).

mindorense GEB., Phil. Journ. Sci., Sec. D (1913), 8, 430.
MINDORO, Baco River (3159, *McGregor*).

Genus *LOPHOCNEMIS* Mäklin

amabilis MÄKL., Act. Fenn. (1864), 398, Pl. 4, fig. 30.

Genus *PSEUDOSTRONGYLUM* Kraatz

aberrans KRAATZ, Deutsche Ent. Zeitschr. (1880), 118.
LUZON.

banksi GEB., Phil. Journ. Sci., Sec. D (1913), 8, 423.
LUZON.

cyanipes GEB., Phil. Journ. Sci., Sec. D (1913), 8, 424.
CAMIGUIN, Babuyan (7813, *McGregor*).

opacum GEB., Phil. Journ. Sci., Sec. D (1913), 8, 422.
LUZON.

semperi KRAATZ, Deutsche Ent. Zeitschr. (1880), 116.

viride KRAATZ, Deutsche Ent. Zeitschr. (1880), 117.
LUZON.

LAGRIIDÆ

LAGRIINÆ

Genus *LAGRIA* Fabricius

concolor BLANCH., † Voy. Pôle Sud (1853), 4, 184, Pl. 12, fig. 10; BORCHM.,
Phil. Journ. Sci., Sec. D (1913), 8, 44.

- LUZON, Bataan, Lamao (9820, *Stevens*): NEGROS, Occidental Negros, Bago (1396, *Banks*): MINDANAO, Agusan River (13694, *Schultze*).
- cribatula* SCHAUF., *Horae Soc. Ent. Ross.* (1887), 21, 136.
- fulgidipennis* BORCHM., *Phil. Journ. Sci., Sec. D* (1913), 8, 44.
NEGROS, Occidental Negros, Mount Canlaon (6456, *Banks*).
- hirticollis* BORCHM., *Bull. Soc. Ent. Ital.* (1909), 41, 201; *Phil. Journ. Sci., Sec. D* (1913), 8, 44.
PALAWAN, Bacuit (12359, *Weber*).
- ionopectera* ERICHS.,† *Nov. Act. Leop. Car.* (1834), 16, Suppl. 1, 250; FAIRM., *Ann. Soc. Ent. France* (1886), 191.
LUZON, Rizal, Montalban Gorge (5197, *Schultze*; 5626, *Banks*).
- prasinella* FAIRM.,† *Ann. Soc. Ent. France* (1886), 191; BORCHM., *Phil. Journ. Sci., Sec. D* (1913), 8, 43.
LUZON, Benguet, Baguio (9924, *Curran*), Bued River (9873, *Curran*); Cagayan, Tuguegarao (10482, *Curran*); Bataan, Lamao (7860, *Schultze*): NEGROS, Occidental Negros, Mount Canlaon (12903, *Banks*).
- pruinosa* CHEVR.,† *Rev. Zool.* (1841), 224.
LUZON, Benguet, Cabayan (11439, 11503, *McGregor*); Pampanga, San Juan (2995, *Williamson*).

Genus CEROGRIA Borchmann

- dohrni* BORCHM., *Bull. Soc. Ent. Ital.* (1909), 41, 212.
LUZON.
- meloides* BORCHM., *Bull. Soc. Ent. Ital.* (1909), 41, 218.

Genus NEOGRIA Borchmann

- concolor* BORCHM., *Bull. Soc. Ent. Ital.* (1909), 41, 225.
LUZON, Benguet, Irisan (973, *McGregor*).

STATIRINÆ

Genus CASNONIDEA Fairmaire

- atricapilla* FAIRM., *Ann. Soc. Ent. France* (1888), 365.
- colon* BORCHM., *Phil. Journ. Sci., Sec. D* (1913), 8, 50.
LUZON.
- diversipes* BORCHM., *Phil. Journ. Sci., Sec. D* (1913), 8, 52.
- diversipes* var. *dissimilis* BORCHM., *Phil. Journ. Sci., Sec. D* (1913), 8, 53.
LUZON.
- mimica* BORCHM., *Phil. Journ. Sci., Sec. D* (1913), 8, 48.
MINDANAO, Camp Keithley (7297, *Clemens*).
- mollis* BORCHM.,† *Phil. Journ. Sci., Sec. D* (1913), 8, 46.
LUZON, Benguet, Irisan (971, 1647, *McGregor*).
- perforata* BORCHM., *Phil. Journ. Sci., Sec. D* (1913), 8, 47.
MINDANAO, Davao.
- serra* BORCHM.,† *Phil. Journ. Sci., Sec. D* (1913), 8, 51.
BATAN, Batanes (7783, *McGregor*).

- tenera** BORCHM., Phil. Journ. Sci., Sec. D (1913), 8, 49.
 LUZON, Laguna, Mount Banahao (7176, *Banks*).

Genus **NEMOSTIRA** Fairmaire

- marginata** BORCHM.,† Phil. Journ. Sci., Sec. D (1913), 8, 55.
 LUZON, Bataan, Lamao (9821, *Stevens*); Cagayan, Pamplona (15027, *Jones*).
- melanura** BORCHM.,† Phil. Journ. Sci., Sec. D (1913), 8, 56.
- melanura** var. **atripennis** BORCHM., Phil. Journ. Sci., Sec. D (1913), 8, 57.
 LUZON, Benguet, Sablan (1619, *Pack*): NEGROS, Occidental Negros, Maa (245, *Banks*).

ALLECULIDÆ

ALLECULINÆ

Genus **ALLECULA** Fabricius

Subgenus **Dietopsis** Solier

- sericans** FAIRM.,† Ann. Soc. Ent. France (1886), 190.
 LUZON, Laguna, Magdalena (769, *Schultze*).

Genus **CISTELOMORPHA** Redtenbacher

- anaematica** BORCHM.,† Phil. Journ. Sci., Sec. D (1913), 8, 59.
 LUZON, Bataan, Lamao (1124, *Merrill*); Rizal, Montalban (9499, *Schultze*): NEGROS, Occidental Negros, Maa (298, *Banks*), Mount Canlaon (6864, *Banks*): SIBUYAN (7692, *McGregor*).
- distincticornis** PIC, Echange (1908), 24, 48.
- rufiventris** BORCHM., Phil. Journ. Sci., Sec. D (1913), 8, 60.
 SIBAY (11407, *D. C. Worcester*).
- semipellita** BORCHM.,† Phil. Journ. Sci., Sec. D (1913), 8, 57.
 LUZON, Benguet, Baguio (11345, *F. Worcester*).
- subcostulata** FAIRM.,† Ann. Soc. Ent. Belg. (1894), 40.
 LUZON, Benguet, Baguio (1476, 11017, *McGregor*), Cabayan (11310, 11509, *McGregor*).

MONOMMIDÆ

Genus **MONOMMA** Castelnau

- philippinarum** THOMS.,† Ann. Soc. Ent. France (1860), 24, Pl. 2, fig. 6.
 LUZON, Rizal, Montalban Gorge (5557, *Banks*): NEGROS, Occidental Negros, Bago (*Banks*), Faraon (12216, *Curran*): MINDORO, Mangarin (10760, *Schultze*).
- pilosum** WATERH., Ann. & Mag. Nat. Hist. (1879), 3, 379.
- quadrimaculatum** WATERH., Ann. & Mag. Nat. Hist. (1879), 3, 379.

MORDELLIDÆ

Genus MORDELLA Linnæus

- decemguttata* FABR.,† Syst. Eleuth. (1801), 2, 123; BOISD., Voy. de l'Astrolabe (1835), 2, 289.
TICAO (6531, *McGregor*).

RHIPIPHORIDÆ

Genus MACROSIAGON Hentz

- nasutum* THUNB., Disc. Nov. Ins. Spec. (1784), 2, 66, Pl. 77; FABR., Mant. Ins. (1787), 1, 217; Syst. Eleuth. (1801), 2, 118; Ent. Syst. (1792), 1, 2; GERST., Mon. Rhipid. Berlin (1855), 29; MARS., Ann. Soc. Ent. France (1876), 479; HAROLD, Deutsche Ent. Zeitschr. (1878), 82.

LYTTIDÆ

Genus HORIA Fabricius

- cephalotes* OLIV.,† Ent. (1795), 3, 53, 5, Pl. 1, fig. 3.
maxillosa FABR., Syst. Eleuth. (1801), 2, 86.
LUZON, Manila (3539, *Brown*; 16360, *Schultze*); Bataan, Lamao (15978, *Burrell*).

Genus CISSITES Latreille

- testacea* FABR.,† Spec. Ins. (1781), 1, 256.
clavipes FABR., Gen. Ins. Mant. (1787), 233.
LUZON, Manila (441, 16359, *Schultze*); Bataan, Lamao (8884, *Ledyard*); NEGROS, Occidental Negros, Bago (1512, *Banks*).

Genus EPICAUTA Redtenbacher

- insularis* HAAG,† Deutsche Ent. Zeitschr. (1880), 80.
insularis var. *montalbana* WELLM., Ent. News (1912), 23, 32.
LUZON, Benguet, Sablan (1618, *Pack*), Irisan (11311, *McGregor*); Rizal, Montalban Gorge (11059, *Schultze*).

Genus ZONITIS Fabricius

- macroxantha* FAIRM.,† Notes Leyden Mus. (1897), 19, 194.
MINDANAO, Agusan River (13659, *Schultze*).

XYLOPHILIDÆ

Genus MACRATRIA Newman

- bicincta* MARS., Notes Leyden Mus. (1882), 4, 114.
pubescens PIC, Echange (1895), No. 132, 134.
BALABAC.
pygmaea PIC, Echange (1895), No. 132, 134.
BALABAC.

Genus *XYLOPHILUS* Latreille

- beccarii* PIC, Ann. Mus. Civ. Stor. Nat. Genova (1901), 20, 738.
LUZON, Manila.

ANTHICIDÆ

Genus *MECYNOTARSUS* Laferte

- baeri* PIC, Ann. Soc. Ent. France (1902), 644.
LUZON.
- humeralis* PIC, Ann. Soc. Ent. France (1902), 643.
LUZON.

Genus *FORMICOMUS* Laferte

- baeri* PIC, Ann. Soc. Ent. France (1902), 645.
- consul* LAF., Mon. Anth. (1848), 91, Pl. 25, fig. 15; PIC, Ann. Soc. Ent. France (1902), 643.
LUZON.
- imperator* LAF.,† Mon. Anth. (1848), 66, Pl. 24, fig. 2; PIC, Ann. Soc. Ent. France (1902), 643.
LUZON.
- inhumeralis* PIC,† Ann. Soc. Ent. France (1902), 644.
LUZON, Laguna, Los Baños (17314, *Baker*).
- javanicus* PIC, in litt.
LUZON, Laguna, Los Baños (17315, *Baker*).
- obscurus* PIC,† Le Natur. (1894), 16, 32.
- obscurus* var. *obscurior* PIC,† Ann. Soc. Ent. France (1902), 645.
- praetor* LAF., Mon. Anth. (1848), 92; PIC, Ann. Soc. Ent. France (1902), 643.
LUZON.
- roseleri* PIC, Mitt. Naturh. Mus. Hamburg (1908), 25, Beih. 2, 178.
LUZON.

Genus *ANTHICUS* Paykull

- bangi* PIC, Le Natur. (1895), 17, 79.
- binotatus* PIC, Ann. Soc. Ent. France (1902), 647.
LUZON.
- busignyi* PIC, Le Natur. (1901), 23, 44.
- floralis* LINN., Syst. Nat., ed. 10 (1758), 420; Faun. Suec. (1761), 2, 228;
PIC, Ann. Soc. Ent. France (1902), 643.
LUZON.
- gracilicornis* PIC, Le Natur. (1895), 17, 94.
BALABAC.
- grandicollis* PIC, Ann. Soc. Ent. France (1902), 645.
LUZON.
- manillanus* PIC, Ann. Soc. Ent. France (1902), 646.
LUZON, Manila.

medionotatus PIC, Le Natur. (1903), 25, 56.

LUZON.

robusticollis PIC, Ann. Soc. Ent. France (1902), 646.

LUZON.

sparsepunctatus PIC, Echange (1906), 22, 58.

LUZON.

subrubrocinctus MARS., Tijdsch. voor Ent. (1882), 25, 61.

Genus *ENDOMIA* Castelnau

baeri PIC, Ann. Soc. Ent. France (1902), 647.

baeri var. *nigrobrunneus* PIC, Ann. Soc. Ent. France (1902), 648.

LUZON.

TRICTENOTOMIDÆ

Genus *TRICTENOTOMA* Gray

thomsoni DEYR., Bull. Soc. Ent. France (1875), 60.

PALAWAN, Mount Salacot (13009, *Lamb*).

LARIIDÆ

Genus *ACANTHOSCELIDES* Schilsky

obtectus SAY.,*† Descr. N. A. Curcul. (1831), 1.

irresectus FABR., Schönh., Gen. Curcul. (1839), 5, 18.

LUZON, Manila (1379, *Gaspar*).

Genus *PACHYMERUS* Thunberg

chinensis LINN.,*† Syst. Nat., ed. 10 (1758), 386.

scutellaris FABR., Ent. Syst. (1792), 1, 372.

LUZON, Batangas, Nasugbu (5163, *Banks*); Bataan, Lamao (9193, *Schultze*); Laguna, Los Baños (17312, *Baker*).

dominicanus JEKEL,*† Ins. Saund. (1855), 1, 12.

LUZON, Laguna, Los Baños (*Baker*).

quadrinaculatus FABR.,*† Ent. Syst. (1792), 1, 371; OLIV., Ent. (1795), 4, 19, Pl. 3, fig. 24.

NEGROS, Occidental Negros, Maao (1382, *Banks*).

Genus *CARYOBORUS* Schönherr

gonagra FABR.,*† Ent. Syst. Suppl. (1798), 5, 159; Syst. Eleuth. (1801), 2, 399.

LUZON, Manila (1597, *Schultze*; 3625, *Banks*); Bataan, Lamao (7345, *Cuzner*; 8419, *Curran*).

CHRYSOMELIDÆ

DONACIINÆ

Genus *DONACIA* Fabricius

wiepkeni WEISE, Arch. Naturgesch. (1898), 64, 178.

LUZON, Tarlac, Tarlac (4688, *Banks*).

CRIO CERINÆ

Genus LEMA Fabricius

- cyanoptera* LACORD., Mon. Phytoph., Mém. Soc. Roy. Liège (1845), 3, 369;
BALY, Trans. Ent. Soc. London (1865), 4, 22.
LUZON, Manila.
- femorata* GUÉR., † Icon. Reg. Anim., Ins. (1844), 259; LACORD., Mon. Phytoph.,
Mém. Soc. Roy. Liège (1845), 316; BALY, Trans. Ent. Soc. London
(1865), iii, 4, 10; JACOBY, Ann. Stor. Nat. Mus. Genova (1889),
27, 150; Fauna Brit. Ind., Col. (1908), 2, 56, fig. 8.
NEGROS, Occidental Negros, Bago (328, *Banks*): MINDANAO, Agusan
River (12515, *Celestino*), Cabadbaran River (16571, *Weber*):
PALAWAN, Bacuit (16318, *Weber*): BUSUANGA (13925, *Schultze*).
- semperi* JACOBY, † Ann. Soc. Ent. Belg. (1893), 37, 267; WEISE, Phil. Journ.
Sci., Sec. D (1910), 5, 139.
CALAYAN, Babuyanes (944, *McGregor*): LUZON, Bataan, Lamao (9153,
Schultze).
- torulosa* LACORD., † Mon. Phytoph., Mém. Soc. Roy. Liège (1845), 3, 345;
BALY, Trans. Ent. Soc. London (1865), iii, 4, 19; WEISE, Phil.
Journ. Sci., Sec. D (1913), 8, 215.
TICAO (6540, *McGregor*): LUZON, Laguna, Los Baños (*coll. Baker*).

Genus CRIOCERIS Geoffroy

- impressa* FABR., † Mant. Ins. (1787), 1, 88; OLIV., Encyl. Méth. (1791), 4,
197; Ent. (1795), 4, 730, Pl. 1, fig. 4; LACORD., Mon. Phytoph.,
Mém. Soc. Roy. Liège (1845), 3, 562; BALY, Trans. Ent. Soc.
London (1865), iii, 4, 32.
TICAO (6539, *McGregor*): PALAWAN, Mount Capoas (12392, *Weber*).
- nucea* LACORD., Mon. Phytoph., Mém. Soc. Roy. Liège (1845), 3, 569; BALY,
Trans. Ent. Soc. London (1865), iii, 4, 35.
- philippinensis* JACOBY, † Ann. Soc. Ent. Belg. (1893), 37, 268.
LUZON, Laguna, Los Baños (*coll. Baker*).
- saundersi* BALY, Trans. Ent. Soc. London (1865), iii, 4, 35.
SULU ISLANDS.
- semipunctata* FABR., † Syst. Eleuth. (1801), 1, 472; BALY, Trans. Ent. Soc.
London (1865), iii, 4, 29, Pl. 1, fig. 1; JACOBY, Proc. Zool. Soc.
London (1887), 68.
dehaani GUÉR., Icon. Reg. Anim., Ins. (1844), 261.
ROMBLON (1985, *McGregor*): LUZON, Zambales, Olongapo (7571,
Banks); Bataan, Lamao (7851, 9145; *Schultze*; 7923, *Cuzner*; 9806,
Stevens).
- tumida* BOWD., Ent. (1913), 46, 242.
LUZON.
- unipunctata* FABR., † Syst. Eleuth. (1801), 1, 471; OLIV., Ent. (1795), 4,
736, Pl. 1, fig. 14; BALY, Trans. Ent. Soc. London (1865), iii,
4, 35.
LUZON, Bataan, Lamao (9152, *Schultze*); Rizal, Montalban Gorge
(9502, *Schultze*).

MEGALOPINÆ

Genus **TEMNASPIS** Lacordaire

cumingi WESTW., Trans. Ent. Soc. London (1864), 276.

LUZON, Laguna, Los Baños (coll. *Baker*).

westwoodi BALY,† Trans. Ent. Soc. London (1865), iii, 4, 41, Pl. 1, fig. 6.

LUZON, Laguna, Los Baños (coll. *Baker*): NEGROS, Occidental Negros, Mount Canlaon (6855, *Banks*).

CLYTRINÆ

Genus **DIAPROMORPHA** Lacordaire

Subgenus **Aspidolopha** Lacordaire

manilensis WEISE, Deutsche Ent. Zeitschr. (1900), 448.

Subgenus **Aetheomorpha** Lacordaire

philippinensis LEF., Ann. Soc. Ent. France (1886), 191.

semperi LEF.,† Ann. Soc. Ent. France (1886), 191; WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 215.

LUZON, Pampanga, Mount Arayat (2978, *Williamson*); Laguna, Los Baños (coll. *Baker*).

Genus **CYANIRIS** Redtenbacher

impicta WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 216.

MINDANAO, Zamboanga (13641, *Zschokke*).

CRYPTOCEPHALINÆ

Genus **COENOBIVS** Suffrian

manilensis WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 217.

LUZON, Rizal, Montalban Gorge (5220, *Banks*).

Genus **CRYPTOCEPHALUS** Geoffroy

laevissimus SUFFR., Mon. Cryptoc., Linn. Entom. (1860), 14, 18; BALY, Trans. Ent. Soc. London (1865), iii, 4, 70.

LUZON.

CHLAMYDINÆ

Genus **EXEMA** Lacordaire

distincta ACHARD, Ann. Soc. Ent. Belg. (1913), 47, 245; Wytsm. Gen. Ins. (1914), fasc. 160, 18, Pl. 2, fig. 6.

LUZON.

philippina WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 216.

LUZON, Manila (7018, *Banks*); Cagayan, Lallo (15292, *Jones*); Laguna, Los Baños (coll. *Baker*).

EUMOLPINÆ

Genus **NODOSTOMA** Motschulsky

binotatum LEF., Ann. Soc. Ent. France (1886), 192.

- cryptopus* LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 58.
cumingi BALY, Descr. New Gen. and Spec. Phyt. (1864), 14; Trans. Ent. Soc. London (1865), iii, 4, 217.
janthinum LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 59.
philippinense LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 60.
semperi LEF., Bull. Soc. Ent. Belg. (1891), 264.
thoracicum LEF., Ann. Soc. Ent. France (1886), 192.

Genus PHAEDROIDES Lefèvre

- philippinensis* LEF.,† Bull. Soc. Ent. France (1885), 125.
 LUZON, Bataan, Lamao (7910, *Cuzner*); Benguet, Irisan (7247, *McGregor*).

Genus SCELODONTA Westwood

- aeneola* LEF.,† Mém. Soc. Roy. Liège (1885), ii, 11, 68; WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 218.
 LUZON, Rizal, Montalban Gorge (9505, *Schultze*); Bataan, Lamao (9822, *Stevens*).
curculionoides WESTW.,† Proc. Zool. Soc. London (1837), 129; BALY, Trans. Ent. Soc. London (1867), 155, Pl. 5, fig. 8.
cupripes MOTSCH., Bull. Mosc. (1866), 2, 408.
insignis LEF., Rev. et Mag. Zool. (1875), 125.
 LUZON, Cagayan, Sanchez Mira (14984, *Jones*).
dillwyni STEPH.,† Ill. Brit. Ent. (1831), 4, 364, Pl. 23, fig. 3; Mon. (1839), 304; CHAMP., Ent. Month. Mag. (1899), 10, 264; JACOBY, Fauna Brit. India, Col. (1908), 2, 385.
nitidula BALY, Descr. New Gen. and Spec. Phyt. (1864), 2; Trans. Ent. Soc. London (1867), iii, 4, 157; WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 218.
 LUZON, Manila (480, 2582, *Banks*); Cagayan, San Luis (15504, *Jones*); PALAWAN, Bacuit (11809, *Weber*).
dispar LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 68.
 MINDANAO.

Genus PAGELLIA Lefèvre

- acuticosta* LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 70.
 LUZON.
foveolata LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 70.
 LUZON.
signata WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 218.
 NEGROS, Occidental Negros, Bago (1391, 1604, *Banks*).
suturalis LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 70.
 LUZON.

Genus AULEXIS Baly

- flavopilosa* LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 76.
luzonica LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 77.
 LUZON.

philippinensis JAC., Stett. Ent. Zeitg. (1895), 55.

puberula LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 77.
LUZON.

pusilla LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 77.

Genus *TRICHOCHRYSEA* Baly

philippinensis BALY, † Journ. Ent. (1864), 2, 219; Trans. Ent. Soc. London (1867), 4, 97.

LUZON, Ilocos Norte, Dungon Plantation (17589, *Banks*).

Genus *LINDINIA* Lefèvre

corrugata LEF., Bull. Soc. Ent. France (1893), 268.
MINDANAO.

fulva LEF., Bull. Soc. Ent. France (1893), 267.
LUZON.

fusco-nigra LEF., Bull. Soc. Ent. France (1893), 267.
POULO BATU.

lefevrei JAC., Stett. Ent. Zeitg. (1895), 60.

pictitarsis LEF., Bull. Soc. Ent. France (1893), 267.
LUZON.

reflexo-aenea LEF., Bull. Soc. Ent. France (1893), 267.

tibialis LEF., † Bull. Soc. Ent. France (1893), 267.

tibialis ab. *nigripes* WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 219.
LUZON, Benguet, Trinidad (8233, *Banks*).

Genus *RHYPARIDA* Baly

costata JAC., Ann. Soc. Ent. Belg. (1898), 356.
LUZON, Laguna, Los Baños (*coll. Baker*).

lateralis BALY, Descr. New Gen. and Spec. Phyt. (1864), 15; Trans. Ent. Soc. London (1867), 210.

Genus *CLYPEOLARIA* Lefèvre

laticollis LEF., Bull. Soc. Ent. Belg. (1891), 268.

thoracica LEF., † Bull. Soc. Ent. France (1885), 126.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus *CHRY SOPIDA* Baly

attelaboides ERICHS., Nov. Act. Leop. Car., Suppl. (1834), 16, 271, Pl. 39, fig. 11; BALY, Trans. Ent. Soc. London (1867), iii, 4, 159, Pl. 5, fig. 4.

adonis BALY, Journ. Ent. (1861), 1, 289.

LUZON.

aureovillosa LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 99.
BOHOL.

- curta* LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 99.
LUZON, Benguet, Irisan (974, 6528, *McGregor*).
- depressicollis* LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 99.
LUZON.
- festiva* BALY, Journ. Ent. (1861), 1, 289; Trans. Ent. Soc. London (1867), iii, 4, 160.
LUZON.
- insignis* BALY, Trans. Ent. Soc. London (1867), iii, 4, 161.
LUZON.
- murina* BALY, Trans. Ent. Soc. London (1867), iii, 4, 162.
LUZON, Laguna, Los Baños (*coll. Baker*): ROMBLON (7465, *McGregor*).
- nigrita* WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 219.
LUZON, Benguet, Irisan (7219, *McGregor*).
- pubipennis* LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 99.
LUZON.
- regalis* BALY, Trans. Ent. Soc. London (1867), iii, 4, 161.
- semperi* LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 99.
MINDANAO.
- subglabrata* JAC., Ann. Soc. Ent. Belg. (1898), 42, 354.

Genus COLASPOSOMA Castelnau

- cumingi* BALY,† Trans. Ent. Soc. London (1867), iii, 4, 271.
LUZON, Tayabas, Baler (11849, *McGregor*).
- distinctum* BALY, Trans. Ent. Soc. London (1867), iii, 4, 272.
- gregarium* LEF.,† Ann. Soc. Ent. France (1886), 193.
LUZON, Laguna, Los Baños (*coll. Baker*): PALAWAN, Iwahig (10727, *Schultze*); Bacuit (12318, *Weber*).
- nitidum* BALY, Trans. Ent. Soc. London (1867), iii, 4, 272.
- pretiosum* BALY, Journ. Ent. (1860), 1, 36.
- rugiceps* LEF.,† Mém. Soc. Roy. Liège (1885), ii, 11, 106.
LUZON, Manila (7715, *Banks*); Bataan, Lamao (9148, *Schultze*); Tayabas, Baler (11840, *McGregor*); Isabela, Marahuirahui (15424, *Banks*).
- viridifasciatum* MOTSCH.,† Schrenk's Reise (1860), 178.
LUZON, Benguet, Irisan (959, 1491, *McGregor*); Bataan, Lamao (9825, *Stevens*): NEGROS, Occidental Negros, Bago (291, *Banks*): TICA0 (7473, *McGregor*): PALAWAN, Iwahig (10854, *Schultze*).

Genus ABIRUS Chapuis

- philippinensis* BALY,† Trans. Ent. Soc. London (1867), iii, 4, 263.
MINDORO, Mansalay (11406, *D. C. Worcester*); Calapan (15750, *Werm*).
- tuberculpennis* LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 114.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus **PACHNEPHORUS** Redtenbacher

- bistriatus** MULS., Mém. Acad. Lyon (1852), 2, 17.
convexicollis BALY, Trans. Ent. Soc. London (1867), iii, 4, 95.
impressus ROSENH., Thiere Andal. (1856), iii, 310; FAIRM., Ann. Soc. Ent. France (1861), 588; MARS., Abeille (1876), 14, 25; WEISE, Naturg. Ins. Deutschl. (1882), 6, 287; REITTER, Wien. Ent. Zeitg. (1901), 20, 53; JACOBY, Fauna Brit. Ind., Col. (1908), 2, 461, fig. 158.

Genus **PHYTORUS** Jacoby

- cyclopterus** LEF., Mém. Soc. Roy. Liége (1885), ii, 11, 134.
 MINDORO.
fervidus LEF., Mém. Soc. Roy. Liége (1885), ii, 11, 134.
 LUZON.
gibbosus LEF.,† Mém. Soc. Roy. Liége (1885), ii, 11, 184.
 LUZON, Bataan, Limay (11936, *Alvarez*); Lamac (16999, *Schultze*).
latus WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 139.
 ROMBLON (1973, 16290, *McGregor*): SIBUYAN (7453, 7678, *McGregor*).
lineolatus WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 220.
 BATAN, Batanes (7786, *McGregor*): LUZON, Laguna, Los Baños (*coll. Baker*).
nigripes LEF., Mém. Soc. Roy. Liége (1885), ii, 11, 134.
 MINDANAO.
plebejus LEF.,† Mém. Soc. Roy. Liége (1885), ii, 11, 134.
 LUZON, Cagayan, Pamplona (15066, *Jones*).
puncticollis LEF., Mém. Soc. Roy. Liége (1885), ii, 11, 134.
 LUZON.

Genus **CLEOPORUS** Lefèvre

- cruciatus** LEF.,† Bull. Ann. Soc. Ent. France (1884), 76.
 MINDORO, Mangarin (12272, *Weber*).

Genus **CLEORINA** Lefèvre

- castanea** LEF., Mém. Soc. Roy. Liége (1885), ii, 11, 144.
 LUZON.
morosa LEF., Mém. Soc. Roy. Liége (1885), ii, 11, 144.
 MINDANAO.
philippinensis JACOBY,† Ann. Soc. Ent. Belg. (1898), 42, 364.
 LUZON, Rizal, Montalban Gorge (5489, *Banks*): BUSUANGA, Calamianes (13930, *Schultze*): PALAWAN, Bacuit (12366, *Weber*).
tibialis LEF., Mém. Soc. Roy. Liége (1885), ii, 11, 145.
 BOHOL: MINDANAO.

Genus **CORYNODES** Hope

- congener** BALY, Descr. New Gen. and Spec. Phyt. (1864), 3; MARSH., Proc. Linn. Soc., Zool. (1864), 8, 38.
 LUZON.

costatus BALY, Descr. New Gen. and Spec. Phyt. (1864), 2; Trans. Ent. Soc. London (1867), iii, 4, 110.

LUZON.

cumingi BALY,† Descr. New Gen. and Spec. Phyt. (1864), 3; Trans. Ent. Soc. London (1867), iii, 4, 116.

LUZON, Bataan, Lamao (7934, *Cuzner*): SIBUYAN (7438, *McGregor*): MINDANAO, Cabadbaran (16688, *Weber*).

egregius LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 148.

MINDANAO.

indigaceus CHEVR.,† Rev. et Mag. Zool. (1841), 228; MARSH., Proc. Linn. Soc., Zool. (1864), 8, 35.

hopei BALY, Descr. New Gen. and Spec. Phyt. (1864), 7; Trans. Ent. Soc. London (1867), iii, 4, 131.

LUZON, Laguna, Magdalena (1771, *Schultze*); Bataan, Lamao (7850, 9147, *Schultze*); Benguet, Irisan (1300, *McGregor*).

longicornis BALY,† Descr. New Gen. and Spec. Phyt. (1864), 2; Trans. Ent. Soc. London (1867), iii, 4, 115.

LUZON, Manila (7423, *Topping*): CALAYAN, Babuyan (653, *McGregor*).

simplicicornis LEF., Mém. Soc. Roy. Liège (1885), ii, 11, 150.

suaveolus MARSH., Proc. Linn. Soc., Zool. (1865), 8, 42; BALY, Trans. Ent. Soc. London (1867), iii, 4, 119.

waterhousei BALY,† Descr. New Gen. and Spec. Phyt. (1864), 4; Trans. Ent. Soc. London (1867), iii, 4, 117.

LUZON, Cagayan, San Luis (15478, *Jones*): MINDORO, Mangarin 13442, *Weber*): MINDANAO, Cabadbaran (16687, *Weber*): PALAWAN, Bacuit (12316, *Weber*).

Genus COLASPOIDES Laporte

philippinensis BALY,† Trans. Ent. Soc. London (1867), iii, 4, 148.

LUZON, Laguna, Los Baños (*coll. Baker*).

CHRYSOMELINÆ

Genus PLAGIODERA Redtenbacher

aerea EYD. et SOUL., Rev. Zool. (1839), 267; DESM., Voy. La Bonite (1841), 1, 325, Pl. 2, fig. 41.

GALERUCINÆ

Genus OIDES Weber

elliptica DUV., Bull. Soc. Ent. Belg. (1884), 28, 137.

LUZON.

flavida DUV.,† Bull. Soc. Ent. Belg. (1884), 28, 137.

LUZON, Laguna, Mount Maquiling (3598, *Banks*): MINDANAO, Davao (16441, *Weber*).

marcida DUV., Bull. Soc. Ent. Belg. (1884), 28, 138.

philippinensis BOHEM., Res. Eugen. (1858), 175.

quadriguttata DUV., Bull. Soc. Ent. Belg. (1884), 28, 139.
LUZON.

sternalis WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 221.
LUZON, Cagayan, Taut (11825, D. C. Worcester).

subtilissima DUV., Bull. Soc. Ent. Belg. (1884), 28, 136.
LUZON.

tibialis DUV., Bull. Soc. Ent. Belg. (1884), 28, 135.

vevilla DUV., Bull. Soc. Ent. Belg. (1884), 28, 134.
LUZON.

Genus AULACOPHORA Chevrolat

Subgenus Rhaphidepalpa Allard

coffea HORNST.,*† Schrift. Berl. Ges. (1788), 8, 5, Pl. 1, fig. 7.
similis OLIV., Ent. (1808), 6, 624, Pl. 2, fig. 25.

LUZON, Cagayan, Apayao (11874, D. C. Worcester); Tayabas, Baler (11950, McGregor): MINDANAO, Camp Keithley (7326, Clemens): MINDORO, Mount Halcon (6367, Merrill): NEGROS, Occidental Negros, Bago (278, Banks): PALAWAN, Iwahig (11927, Weber): SIKULJOR (8963, Celestino).

Subgenus Aulacophora Allard

bicolor WEBER,† Obs. Ent. (1801), 56.

bicolor var. *sexnotata* CHAP., Bull. Soc. Ent. Belg. (1876), 19, 99.
LUZON, Laguna, Los Baños (8556, Banks); Rizal, Montalban Gorge (9273, 9864, Schultze); Cagayan, Pamplona (15054, Jones).

cinctipennis DUV., Bull. Soc. Ent. Belg. (1884), 25, 313.
limbata CHAP., Bull. Soc. Ent. Belg. (1876), 19, 100.

flavicornis CHAP., Bull. Soc. Ent. Belg. (1876), 19, 100.

marginalis CHAP.,† Bull. Soc. Ent. Belg. (1876), 19, 100.
LUZON, Laguna, Los Baños (coll. Baker): ROMBLON (7464, McGregor): PALAWAN, Iwahig (11916, Weber).

marginata CHAP., Bull. Soc. Ent. Belg. (1876), 19, 101.

pectoralis CHAP., Bull. Soc. Ent. Belg. (1876), 19, 100.

philippinensis DUV., Bull. Soc. Ent. Belg. (1884), 28, 313.
nigripennis CHAP., Bull. Soc. Ent. Belg. (1876), 19, 101.

postica CHAP., Bull. Soc. Ent. Belg. (1876), 19, 99.

quadrimaculata CHAP.,† Bull. Soc. Ent. Belg. (1876), 19, 100.
LUZON, Rizal, Montalban (7659, Schultze); Tayabas, Baler (11948, McGregor); Cagayan, Apayao (11873, D. C. Worcester): MINDORO, Baco River (3392, McGregor): SIBUYAN (7454, McGregor): NEGROS, Occidental Negros, Bago (277, Banks).

quadrinotata CHAP., Bull. Soc. Ent. Belg. (1876), 19, 100.

- rosea* FABR.,† Syst. Eleuth. (1801), 1, 479.
dimidiata GUÉR., Voy. Coquille, Zool. (1830), 2, 148.
albicornis CHAP., Bull. Soc. Ent. Belg. (1876), 19, 99.
 LUZON, Benguet, Irisan (1299, *McGregor*); Laguna, Mount Banahao (7199, *Banks*): MINDANAO, Agusan River (13677, *Schultze*).
smaragdipennis DUV.,† Bull. Soc. Ent. Belg. (1884), 28, 313.
viridipennis CHAP., Bull. Soc. Ent. Belg. (1876), 19, 100.
 LUZON, Laguna, Los Baños (*coll. Baker*): NEGROS, Occidental Negros, Bago (275, 1689, *Banks*).
tibialis CHAP., Bull. Soc. Ent. Belg. (1876), 19, 99.
unicolor JACOBY, Notes Leyden Mus. (1883), 5, 201.
flavescens CHAP., Bull. Soc. Ent. Belg. (1876), 19, 100.
chapuisi DUV., Bull. Soc. Ent. Belg. (1884), 28, 313.
uniformis CHAP.,† Bull. Soc. Ent. Belg. (1876), 19, 99.
uniformis var. *bipunctata* WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 222.
 LUZON, Bataan, Lamao (7900, *Cuzner*); Tayabas, Baler (11952, *McGregor*); Cagayan, Tautit (11829, *D. C. Worcester*): NEGROS, Occidental Negros, Bago (283, 6318, *Banks*), Mount Canlaon (12879, *Banks*).
varians CHAP., Bull. Soc. Ent. Belg. (1876), 19, 100.
vittula CHAP., Bull. Soc. Ent. Belg. (1876), 19, 100.

Genus MORPHOSPHERA Baly

- impunctata* ALL., Bull. Soc. Ent. Belg. (1890), 89.
perigrina WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 222.
 PALAWAN, Bacuit (11800, 16319, *Weber*).

Genus GALERUCELLA Crotch

- mindorana* WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 223.
 MINDORO, Bongabon (8393, *Schultze*).
philippinensis BOHEM.,† Res. Eugen. (1858), 177.
 LUZON, Benguet, Trinidad (8203, *Banks*); Laguna, Los Baños (*coll. Baker*).

Genus PSEUDOCOPHORA Jacoby

- ambusta* ERICHS., Nov. Act. Leop. Car. (1834), 16, Suppl. 1, 272.
 LUZON, Rizal, Montalban (9573, *Topping*).
perplexa BALY, Journ. Linn. Soc. London (1890), 20, 175.
ventralis WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 223.
 PALAWAN.

Genus DORYIDA Baly

- ferruginea* ALL., Bull. Soc. Ent. Belg. (1890), 93.

Genus DERCETES Clark

- marginella* ALL., Bull. Soc. Ent. Belg. (1889), 107.

punctata ALL., Bull. Soc. Ent. Belg. (1889), 107.

MINDORO, Mount Halcon (6368, *Merrill*): NEGROS, Occidental Negros, Bago (295, *Banks*).

quadriplagiata ALL., Bull. Soc. Ent. Belg. (1889), 107.

soluta WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 225.

LUZON, Benguet, Trinidad (8201, *Banks*).

terminata ALL., Bull. Soc. Ent. Belg. (1889), 108.

tibialis ALL., Bull. Soc. Ent. Belg. (1889), 108.

Genus EUMAEA Baly

fasciata BALY, Trans. Ent. Soc. London (1886), 36.

SULU ISLANDS.

Genus MENIPPUS Clark

philippinensis JACOBY, Ann. Soc. Ent. Belg. (1894), 38, 192.

viridis DUV., Bull. Soc. Ent. Belg. (1884), 28, 318.

NEGROS, Occidental Negros (327, *Banks*).

Genus HAPLOSONYX Chevrolat

albicornis WIEDEM., † Germ. Mag. Ent. (1821), 4, 175.

PALAWAN, Iwahig (10738, *Schultze*); Mount Capoas (12383, *Weber*).

banksi WEISE, † Phil. Journ. Sci., Sec. D (1913), 8, 225.

NEGROS, Occidental Negros, Bago (6276, *Banks*).

fulvicornis WEISE, † Phil. Journ. Sci., Sec. D (1913), 8, 226.

LUZON, Cagayan, Tapil (10664, *Curran*).

philippinensis JACOBY, † The Entom., Suppl. (1891), 24, 64.

NEGROS, Occidental Negros, Bago (297, 1642, *Banks*), Mount Canlaon (*Banks*): MINDANAO, Zamboanga (15876, *Merrill*).

philippinus WEISE, † Phil. Journ. Sci., Sec. D (1913), 8, 227.

MINDANAO, Agusan River (12535, *Celestino*; 13666, *Schultze*).

smaragdipennis CHEVR., † Rev. Zool. (1839), 288; GUÉR., Voy. Favorite (1838), 68, Pl. 233, fig. 4; DESM., Voy. La Bonite (1841), 1, 323, Pl. 2, fig. 40.

LUZON, Benguet, Irisan (1070, *McGregor*), Trinidad (8228, *Banks*), Cayapa (9893, *Curran*).

speciosus BALY, † Ann. & Mag. Nat. Hist. (1879), V, 3, 113.

MINDORO, Bongabon (8380, *Schultze*): SIBUYAN (2001, *McGregor*): MINDANAO, Agusan River (13716, *D. C. Worcester*), Zamboanga (15875, *Merrill*).

Genus CYNORTA Baly

cavifrons DUV., † Stett. Ent. Zeitg. (1885), 46, 247; WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 224.

LUZON, Rizal, Montalban Gorge (5344, *Banks*).

- citrina* JAC.,† Ann. Soc. Ent. Belg. (1894), 58, 190; WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 224.
 LUZON, Bataan, Lamao (6408, *Cuzner*): MINDANAO, Agusan River (13693, *Schultze*): NEGROS, Occidental Negros, Mount Canlaon (12947, *Merrill*).
- discoidea* WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 228.
 PALAWAN, Bacuit (12264, *Weber*), Mount Capoas (12394, *Weber*).
- limbata* JACOBY,† Ann. Soc. Ent. Belg. (1894), 38, 187.
 CALAYAN, Babuyan (7262, *McGregor*): TICA0 (9618, *McGregor*): MINDORO, Bongabon (8388, *Schultze*).
- longicornis* WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 224.
 LUZON, Rizal, Montalban Gorge (5308, *Banks*).
- parvicollis* JACOBY, Ann. Soc. Ent. Belg. (1894), 38, 188.
 PULOBATU, Gusu.
- quadriplagiata* WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 225.
 CALAYAN, Babuyan (638, *McGregor*).
- semilimbata* JACOBY, Ann. Soc. Ent. Belg. (1894), 38, 188.
 SAMAR.
- semperi* JACOBY, Ann. Soc. Ent. Belg. (1894), 38, 190.
 LUZON.
- signifera* WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 227.
 PALAWAN, Iwahig (10779, *Schultze*; 16220, *Weber*), Bacuit (12262, *Weber*).
- tripunctata* JACOBY, Ann. Soc. Ent. Belg. (1894), 38, 189.

Genus HOPLASOMA Jacoby

- philippinensis* JACOBY,† Ann. Soc. Ent. Belg. (1894), 38, 197.
 BATAN, Batanes (7752, *McGregor*): LUZON, Tayabas, Baler (11622, *D. C. Worcester*); Pampanga, Mount Arayat (2977, *Williamson*); Bataan, Lamao (7849, 9144, *Schultze*): MINDORO, Bongabon (8387, *Schultze*).
- picifemora* ALL., Ann. Soc. Ent. France (1888), 329.

Genus MONOLEPTA Erichson

- baeri* ALL.,† Le Natur. (1888), 2, 260, fig. 1.
 LUZON, Zambales, Olongapo (7584, *Banks*).
- bifasciata* HORNST.,† Schrift. Berl. Ges. (1788), 8, 3, Pl. 1, fig. 6.
rubrosignata BOHEM., Res. Eugen. (1858), 182.
 LUZON, Tarlac, Anao (7273, *McGregor*); Benguet, Trinidad (8200, *Banks*): MINDANAO, Camp Keithley (7330, *Clemens*).
- bifoveolata* WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 141.
 MINDORO, Baco River (3393, *McGregor*).
- concolor* BOHEM., Res. Eugen. (1858), 182.
- cumingi* BALY, Journ. Linn. Soc. London (1890), 20, 165.
- cyanipennis* ALL., Bull. Soc. Ent. Belg. (1889), 110.

haemorrhoidalis FABR., Syst. Eleuth. (1801), 1, 490; OLIV., Ent. (1808), 6, 629, Pl. 3, fig. 33; BOISD., Voy. de l'Astrolabe (1835), 550.

hieroglyphica MOTSCH.,† Et. Ent. (1858), 104.

elegantula BOHEM., Res. Eugen. (1858), 183.

hieroglyphica ab. *simplex* WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 229.
LUZON, Benguet, Trinidad (8199, *Banks*).

palawana WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 229.

MINDORO, Magaran (12271, *Weber*): PALAWAN, Bacuit (11806, *Weber*).

puncticollis ALL., Le Natur. (1888), 2, 260, fig. 2.

LUZON, Manila (3725, *Arce*).

rubrosignata BOHEM., Res. Eugen. (1858), 182.

Genus **STROBIDERUS** Jacoby

laevicollis ALL., Bull. Soc. Ent. Belg. (1889), 111.

LUZON.

rufus ALL., Bull. Soc. Ent. Belg. (1889), 111.

LUZON.

Genus **NACREA** Baly

philippina WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 230.

MINDORO, Magaran (12269, *Weber*): PALAWAN, Iwahig (11642, *Weber*),
Mount Capoas (12396, *Weber*).

Genus **NANCITA** Allard

alterna ALL., Bull. Soc. Ent. Belg. (1889), 106.

PULOBATU.

Genus **SERMYLOIDES** Jacoby

banksi WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 231.

NEGROS, Occidental Negros, Mount Canlaon (12938, *Banks*).

philippinensis JACOBY, Stett. Ent. Zeitg. (1895), 56, 75.

Genus **BUPHONIDA** Baly

philippinensis JACOBY, Stett. Ent. Zeitg. (1895), 56, 75.

Genus **CNECODES** Motschulsky

saturalis MOTSCH.,† Et. Ent. (1858), 100.

LUZON, Manila (4793, *Banks*); Benguet, Trinidad (8648, *Banks*).

Genus **MIMASTRA** Baly

brevicollis ALL., Bull. Soc. Ent. Belg. (1889), 104.

elegans ALL., Bull. Soc. Ent. Belg. (1889), 109.

parva ALL., Bull. Soc. Ent. Belg. (1889), 104.

semimarginata JACOBY, Ann. Mus. Civ. Genova (1886), 108.

semimarginata var. *latimanus* ALL., Ann. Soc. Ent. France (1888), 308.

terminata ALL., Bull. Soc. Ent. Belg. (1889), 103.
MINDANAO, Camp Keithley (7314, *Clemens*).

Genus *OZOMENA* Allard

costata ALL., Bull. Soc. Ent. Belg. (1889), 111.
incostata ALL., Bull. Soc. Ent. Belg. (1889), 112.
weberi WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 232.
PALAWAN, Bacuit (11782, *Weber*).

Genus *MINDANA* Allard

apicallis (CHAP.) ALL., Bull. Soc. Ent. Belg. (1889), 112.
LUZON.
cyanipennis (CHAP.) ALL., Bull. Soc. Ent. Belg. (1889), 112.
MINDANAO.
dimidia (CHAP.) ALL., Bull. Soc. Ent. Belg. (1889), 112.
LUZON.
femoralis (CHAP.) ALL., Bull. Soc. Ent. Belg. (1889), 112.
LUZON.
nigripes (CHAP.) ALL., Bull. Soc. Ent. Belg. (1889), 112.
MINDANAO.
ruficollis (CHAP.) ALL., Bull. Soc. Ent. Belg. (1889), 112.
LUZON.
vittata (CHAP.) ALL., Bull. Soc. Ent. Belg. (1889), 112.
LUZON.

Genus *PLATYXANTHA* Baly

basalis DUV., Bull. Soc. Ent. Belg. (1884), 318.
LUZON.
punctata ALL., Bull. Soc. Ent. Belg. (1889), 115.
LUZON: MINDORO.
suturalis DUV., Stett. Ent. Zeitg. (1885), 46, 398.

Genus *STENOPLATYS* Baly

robustus ALL., Bull. Soc. Ent. Belg. (1889), 117.

HALTICINÆ

Genus *NISOTRA* Baly

gemella ERICHS., Nov. Act. Leop. Car. (1834), 16, Suppl. 1, 275.
LUZON, Benguet, Baguio (9904, *Curran*); Isabel, Panauan (11608, *D. C. Worcester*); Cagayan, San Luis (15336, *Jones*); Rizal, Montalban Gorge (9508, *Schultze*): PALAWAN, Bacuit (11810, *Weber*).

Genus *ACROCRYPTA* Baly

variabilis DUV.,† Bull. Soc. Ent. Belg. (1890), 144; WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 233.
MINDANAO, Zamboanga (13649, *Zschokke*), Davao (16825, *Weber*).

Genus **APHTHONA** Chevrolat

- wallacei* BALY, Trans. Ent. Soc. London (1877), 178; WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 233.
PALAWAN, Bacuit (12350, *Weber*).

Genus **LONGITARSUS** Latreille

- manilensis* WEISE, Phil. Journ. Sci., Sec. D (1913), 8, 233.
LUZON, Manila (2703, *Schultze*).

Genus **PHYLLOTRETA** Chevrolat

- cumingi* BALY, Trans. Ent. Soc. London (1877), 179.
decora BOHEM., Res. Eugen. (1858), 196.
elongatula BOHEM., Res. Eugen. (1858), 197.
prolixa ERICHS., Nov. Act. Leop. Car. (1834), 16, Suppl. 1, 274.

Genus **LUPEROMORPHA** Weise

- serricornis* DUV.,*† Stett. Ent. Zeitg. (1885), 46, 387.
LUZON, Manila (10309, *Ledyard*): NEGROS, Occidental Negros, Bago (916, 1148, 1399, *Banks*).

Genus **DIMAX** Weise

- media* WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 235.
PALAWAN, Bacuit (12265, 12327, *Weber*), Ulugan Bay (14052, *Schultze*).

Genus **SPHAEROMETOPA** Chapuis

- cumingi* BALY, Trans. Ent. Soc. London (1876), 434.

Genus **SPHAERODERMA** Stephens

- negrosanum* WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 236.
NEGROS, Occidental Negros, Bago (251, *Banks*).

Genus **SEBAETHE** Baly

- badia* ERICHS.,† Nov. Act. Leop. Car. (1834), 16, Suppl. 1, 274.
LUZON, Benguet (977, 1498, *McGregor*); Rizal, Montalban Gorge (8100, 11060, *Schultze*): NEGROS, Occidental Negros, Mount Canlaon (12936, *Banks*): PALAWAN, Ulugan Bay (14053, *Schultze*), Bacuit (12320, *Weber*): BUSUANGA, Calamianes (13937, *Schultze*).
contracta ERICHS., Nov. Act. Leop. Car. (1834), 16, Suppl. 1, 274.

Genus **SUTREA** Baly

- flava* JACOBY, Ann. Soc. Ent. Belg. (1898), 42, 374.

Genus **PSYLLIODES** Latreille

- balyi* JACOBY,*† Notes Leyden Mus. (1884), 6, 30.
LUZON, Manila (2438, *Banks*).
splendida HAR.,*† Deutsche Ent. Zeitschr. (1877), 364.
LUZON, Manila (2466, *Banks*): CEBU, Toledo (6783, *McGregor*).

Genus **ERYSTUS** Jacoby

banksi WEISE,† *Phil. Journ. Sci., Sec. D* (1910), **5**, 226.

LUZON, Rizal, Montalban Gorge (5310, *Banks*; 8198, 9863, *Schultze*).

Genus **BLEPHARIDA** Chevrolat

manilensis WEISE,† *Phil. Journ. Sci., Sec. D* (1910), **5**, 142.

MINDORO, Bongabon (8378, *Schultze*): SIBUYAN (1913, 7694, *McGregor*):

PALAWAN, Bacuit (11798, *Weber*).

Genus **ENNEAMERA** Harold

neglecta WEISE,† *Phil. Journ. Sci., Sec. D* (1913), **8**, 237.

LUZON, Laguna, Los Baños (*coll. Baker*): PALAWAN, Iwahig (11988, *Weber*).

nigra JAC., *Ann. Mus. Civ. Genova* (1896), 137; WEISE, *Phil. Journ. Sci., Sec. D* (1913), **8**, 236.

PALAWAN.

thoraxica BALY,† *Ent. Month. Mag.* (1876), **13**, 82.

LUZON, Benguet, Cabayan (12011, *McGregor*); Laguna, Los Baños (*coll. Baker*).

(To be concluded.)

THE PHILIPPINE
JOURNAL OF SCIENCE

D. GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

VOL. XI

MARCH, 1916

No. 2

A CATALOGUE OF PHILIPPINE COLEOPTERA

By W. SCHULTZE

(Manila, P. I.)

[Concluded.]

CASSIDINÆ

Genus HOPLIONOTA Hope

bipunctata SPAETH, Verh. Zool. Bot. Ges. Wien (1907), 57, 137; (1913), 63, 524.

LUZON.

biramosa WAG., Mitt. Münch. Ent. Ver. (1881), 5, 19; SPAETH, Verh. Zool. Bot. Ges. Wien (1913), 63, 524.

braueri SPAETH, Verh. Zool. Bot. Ges. Wien (1914), 64.

LUZON, Manila.

chapuisi SPAETH, Verh. Zool. Bot. Ges. Wien (1913), 63, 523.

LUZON, Laguna, Los Baños.

maculipennis BOHEM., Cat. Brit. Mus. (1856), 9, 5; Mon. Cassid. (1862), 4, 7; SPAETH, Verh. Zool. Bot. Ges. Wien (1913), 63, 501.

LUZON, Zambales, Olongapo (7582, *Banks*); Cagayan, Ilagan (9799, *Stevens*).

taeniata FABR.,† Syst. Eleuth. (1801), 1, 396; OLIV., Ent. (1808), 6, 972; 97, Pl. 6, fig. 102; BOHEM., Mon. Cassid. (1850), 1, 40; SPAETH, Verh. Zool. Bot. Ges. Wien (1913), 63, 495.

horrifica (ex p.) BOHEM., Mon. Cassid. (1862), 4, 8; WEISE, Deutsche Ent. Zeitschr. (1905), 123.

LUZON, Manila (1359, *Schultze*; 10629, *Banks*); Laguna, Los Baños (*Baker*); PALAWAN, Iwahig (10740, *Schultze*).

undulata WAG., Mitt. Münch. Ent. Ver. (1881), 5, 18; SPAETH, Verh. Zool. Bot. Ges. Wien (1913), 63, 524.

MINDANAO.

vittata WAG., Mitt. Münch. Ent. Ver. (1881), 5, 19; SPAETH, Verh. Zool. Bot. Ges. Wien (1913), 63, 524.

BOHOL.

139117

Genus *PRIOPTERA* Hope

binotata BOHEM., Cat. Brit. Mus. (1856), 9, 10; Mon. Cassid. (1862), 4, 23.

immaculata WAG., Mitt. Münch. Ent. Ver. (1881), 5, 26.

immaculata var. *fuscopunctata* WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 228.

TICAO (6541, *McGregor*).

latissima WAG., Mitt. Münch. Ent. Ver. (1881), 5, 26.

octopustulata BOHEM., Cat. Brit. Mus. (1856), 9, 10; Mon. Cassid. (1862), 4, 24.

BOHOL (6701, *McGregor*).

palawanica WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 239.

PALAWAN, Iwahig (10759, *Schultze*), Bacuit (11786, *Weber*).

quadrisingnata BOHEM., Mon. Cassid. (1850), 1, 58.

LUZON, Manila.

schultzei WEISE,*† Phil. Journ. Sci., Sec. A (1908), 3, 259; SCHULTZE, Phil. Journ. Sci., Sec. A (1908), 3, 263, Pl. 6, fig. 1.

MINDORO, Bongabon (8383, *Schultze*).

sinuata OLIV.,*† Encyl. Méth. (1790), 5, 392; FABR., Ent. Syst. (1792), 1, 298; SCHULTZE, Phil. Journ. Sci., Sec. A (1908), 3, 261, Pl. 6, fig. 2.

decemnotata BOHEM., Mon. Cassid. (1850), 1, 59; (1862), 4, 25.

sinuata ab. *deficiens* WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 228.

LUZON, Manila (552, 8035, *Schultze*); Cagayan, Ilagan (9840, *Stevens*).

Genus *MEGAPYGA* Boheman

caeruleomaculata BOHEM.,† Mon. Cassid. (1850), 1, 42.

LUZON, Laguna, Los Baños (13083, *Ledyard*); Rizal, Montalban (*Schultze*).

eximia BOHEM., Mon. Cassid. (1850), 1, 43, Pl. 1, fig. F; (1862), 4, 16.

LUZON, Manila.

terminalis BOHEM., Mon. Cassid. (1862), 4, 16.

Genus *ASPIDOMORPHA* Hope

bilobata BOHEM.,† Cat. Brit. Mus. (1856), 9, 111; Mon. Cassid. (1862), 4, 269.

LUZON, Laguna, Calauang (14179, *McGregor*).

biradiata BOHEM.,† Mon. Cassid. (1854), 2, 292.

LUZON, Laguna, Calauang (14165, *McGregor*).

dorsata FABR.,† Mant. Ins. (1787), 1, 64; Ent. Syst. (1792), 1, 301; Syst. Eleuth. (1801), 1, 401; LINN., Syst. Nat., ed. 13; GMEL., (1787), 1, 1641; BOHEM., Mon. Cassid. (1854), 2, 296.

calligera BOHEM., Mon. Cassid. (1854), 2, 297; WEISE, Deutsche Ent. Zeitschr. (1897), 104.

fraterna BALY,† Journ. Ent. (1863), 2, 11.

PALAWAN, Bacuit (11789, *Weber*), Iwahig (132310, *Lamb*).

fusconotata BOHEM.,† Mon. Cassid. (1854), 2, 279.

LUZON, Cagayan, Ilagan (9797, *Stevens*); Tayabas, Baler (11956, *McGregor*).

fuscopunctata BOHEM.,† Mon. Cassid. (1854), 2, 298; WEISE, Deutsche Ent. Zeitschr. (1897), 104; SPAETH, Sarawak Mus. Journ. (1912), 1, 117.

LUZON, Rizal, Montalban Gorge (5345, *Banks*); Benguet, Irisan (6358, *McGregor*): MINDANAO, Camp Keithley (6893, *Clemens*): PALAWAN, Iwahig (8585, *Weber*), Bacuit (11790, *Weber*).

miliaris FABR.,*† Syst. Ent. (1775), 91; Spec. Ins. (1781), 1, 111; Mant. Ins. (1787), 1, 64; Ent. Syst. (1792), 1, 300; Syst. Eleuth. (1801), 1, 400; LINN., Syst. Nat., ed. 13; GMEL., (1787), 1, 1640; OLIV., Encyl. Méth. (1790), 5, 385; Ent. (1808), 6, 943; 97, Pl. 2, fig. 25; HERBST, Natursyst. Käf. (1799), 8, 312, Pl. 135, fig. 8; BOHEM., Mon. Cassid. (1854), 2, 261; WEISE, Deutsche Ent. Zeitschr. (1896), 16; SPAETH, Ann. Mus. Nat. Hung. (1903), 1, 138; SCHULTZE, Phil. Journ. Sci., Sec. A (1908), 3, 264, Pl. 2, figs. 1-4; Pl. 6, figs. 6-9.

amplissima BOHEM., Mon. Cassid. (1854), 2, 260; WEISE, Deutsche Ent. Zeitschr. (1896), 16.

celebensis BLANCH., Voy. Pôle Sud (1853), 4, 316, Pl. 18, fig. 9; BOHEM., Mon. Cassid. (1862), 4, 281.

quatuordecimpunctata OLIV., Ent. (1808), 6, 943; 97, Pl. 4, fig. 66; BOHEM., Mon. Cassid. (1855), 3, 521.

miliaris ab. **flaveola** WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 143.

miliaris ab. **inundata** WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 143.

CALAYAN, Babuyanes (639, *McGregor*): LUZON, Manila (1136, *Schultze*); Benguet, Irisan (1312, *McGregor*): SIKUIJOR (8961, *Celestino*): PALAWAN, Bacuit (11792, *Weber*): NEGROS, Occidental Negros, Bago (350, *Banks*).

orbicularis BOHEM., Mon. Cassid. (1854), 2, 255.

SIBAY (11409, *D. C. Worcester*).

quadrilobata BOHEM., Cat. Brit. Mus. (1856), 9, 111.

PALAWAN, Iwahig (6359, 10741, 11641, *Curran, Schultze, Weber*).

sanctacrucis FABR., Syst. Eleuth. (1801), 4, Append., 446; Syst. Eleuth. (1801), 1, 401; Ill. Mag. Ins. (1806), 5, 227; BOHEM., Mon. Cassid. (1854), 2, 287, Pl. 6, fig. B; WEISE, Deutsche Ent. Zeitschr. (1897), 102.

subcruciata BOHEM., Mon. Cassid. (1854), 2, 293.

Genus LACCOPTERA Boheman

luzonica SPAETH,*† Col. Cat. (1814), pars 62, 82.

philippinensis BLANCH., Voy. Pôle Sud (1853), 4, 321, Pl. 18, fig. 14; BOHEM., Mon. Cassid. (1855), 3, 79; SCHULTZE, Phil. Journ. Sci., Sec. A (1908), 3, 268, Pl. 6, fig. 3.

LUZON, Manila (4771, 4787, *Banks*); Benguet, Irisan River (1501, *McGregor*).

manilensis WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 144.

manilensis ab. *nigripennis* WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 144.
 LUZON, Benguet, Irisan (6360, *McGregor*); Bataan, Lamao (7909, *Cuzner*); Tayabas, Baler (11835, *D. C. Worcester*): Ticao (9606, *McGregor*).

novedecimnotata BOHEM., Mon. Cassid. (1855), 3, 67.
 LUZON, Manila.

tredecimgutta WAG., Mitt. Münch. Ent. Ver. (1877), 65.
 LUZON, Manila.

Genus *CASSIDA* Linnæus

obtusata BOHEM., Mon. Cassid. (1854), 2, 405; SPAETH, Suppl. Ent. (1914), 3, 19; KERSH. and MUIR, Trans. Ent. Soc. London (1907), 251.

picifrons WEISE,*† Phil. Journ. Sci., Sec. A (1908), 3, 259; SCHULTZE, Phil. Journ. Sci., Sec. A (1908), 3, 266, Pl. 6, fig. 5.
 LUZON, Manila (8619, 12347, *Schultze, Banks*).

piperata HOPE,† Proc. Ent. Soc. London (1842), 62; Trans. Ent. Soc. London (1845), 4, 12.
 LUZON, Manila (281, *Schultze*; 4933, *Banks*).

Genus *CHIRIDA* Chapuis

punctata WEBER, Obs. Ent. (1801), 1, 51.
pardalina DEJ., Cat., 8 ed. (1837), 397.
punctaria FABR., Syst. Eleuth. (1801), 1, 392; OLIV., Ent. (1808), 6, 965, Pl. 6, fig. 90; BOHEM., Mon. Cassid. (1855), 3, 254.
 BALABAC.

westringi BOHEM.,† Mon. Cassid. (1862), 4, 433; WEISE, Deutsche Ent. Zeitschr. (1892), 352; SPAETH, Verh. Zool. Bot. Ges. Wien (1901), 51, 348.
 LUZON, Bataan, Lamao (9796, *Stevens*); Cagayan, Apayao (11878, *D. C. Worcester*): PALAWAN, Iwahig (8578, *Weber*); Bacuit (11793, *Weber*).

Genus *METRIONA* Weise

catenata BOHEM., Mon. Cassid. (1855), 3, 262; WEISE, Deutsche Ent. Zeitschr. (1892), 352.

catenata ab. *fulgida* BOHEM., Mon. Cassid. (1855), 3, 347; SPAETH, Ann. Mus. Civ. Genova (1904), 41, 79.
 LUZON, Manila.

circumdata HERBST, Käfer (1801), 8, 268, Pl. 132, fig. 11; OLIV., Ent. (1808), 6, 967, Pl. 6, fig. 93; BOHEM., Mon. Cassid. (1855), 3, 279.

luzonica ESCHSCH., in litt.

PALAWAN.

quinquemaculata BOHEM., Mon. Cassid. (1854), 2, 467.

manilensis WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 229.
 LUZON, Rizal, Montalban Gorge (5343, *Banks*).

recondita BOHEM.,† Mon. Cassid. (1862), 4, 396.
 MINDANAO, Agusan River (13688, *Schultze*).

- trivittata* FABR.,*† Syst. Eleuth. (1801), 1, 397; OLIV., Ent. (1808), 6, 973, Pl. 6, fig. 103; BOHEM., Mon. Cassid. (1862), 4, 433; SCHULTZE, Phil. Journ. Sci., Sec. A (1908), 3, 267, Pl. 6, fig. 4.
- trivittata* ab. *baeri* SPAETH, Ann. Mus. Nat. Hung. (1903), 1, 128.
 LUZON, Manila (304, 445, *Schultze*; 471, *Banks*); Bataan, Lamao (7630, 7908, *Cuzner*); Benguet, Trinidad (8202, *Banks*): TICA0 (9612, *McGregor*): PALAWAN, Iwahig (11910, *Weber*).

HISPINÆ

Genus BOTRYONOPA Blanchard

- bipunctata* BALY, Cat. Hisp. (1858), 96.
 MINDORO, Magaran (11731, *Weber*).
- collaris* WEISE, Ann. Soc. Ent. Belg. (1911), 75.
 PALAWAN, Iwahig (10736, *Schultze*; 11748, *Weber*; 12546, *Lamb*).
- crenata* CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 21.
 MINDANAO.
- cyanoptera* BALY, Trans. Ent. Soc. London (1869), 375; CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 19.
 MINDANAO.
- foveicollis* BALY, Cat. Hisp. (1858), 94.
crassipes MOTSCH., Bull. Mosc. (1861), 1, 629.
 LUZON.
- geniculata* BALY, Cat. Hisp. (1858), 97, Pl. 7, fig. 5.
- imperialis* BALY, Trans. Ent. Soc. London (1869), 375.
coeruleipennis DUVIV., Stett. Ent. Zeitg. (1885), 46, 399.
 MINDANAO.
- opaca* WEISE, Verh. Nat. Ver. Brünn (1910), 49, 161.
 LUZON.
- punctatissima* CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 22.
 LUZON.
- purpurascens* CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 19.
 MINDANAO.
- terminalis* BALY, Ent. Month. Mag. (1876), 127.
 MINDANAO.

Genus ANISODERA Baly

Subgenus Anisodera Baly

- parallela* CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 20.
 MINDANAO.
- thoracica* CHAP.,† Bull. Ann. Soc. Ent. Belg. (1876), 19, 20.
 MINDANAO, Zamboanga (13642, *Zschokke*): LUZON, Laguna, Los Baños (*coll. Baker*).

Subgenus Lissochila Weise

- lucidiventris* GUÉR., Rev. Zool. (1840), 333; BALY, Cat. Hisp. (1858), 104.
 MINDANAO.

Genus **HISPODONTA** Baly

nigricornis BALY, Cat. Hisp. (1858), 79, Pl. 6, fig. 6; CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 18.

CEBU: MINDANAO.

semperi CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 18.
LUZON.

tarsata CHAP.,† Bull. Ann. Soc. Ent. Belg. (1876), 19, 18.
MINDANAO, Cabadbaran (16972, *Weber*).

Genus **CALLISPA** Baly

cumingi BALY,*† Cat. Hisp. (1858), 5; CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 17.

LUZON, Manila (6514, *Banks*): PALAWAN, Puerto Princesa (10776, *Schultze*).

duodecimmaculata CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 17.
BOHOL.

flavescens WEISE,*† Ann. Soc. Ent. Belg. (1911), 75.

nigricornis CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 17.

LUZON, Manila (2620, *Schultze*); Rizal, Montalban Gorge (9107, 9270, *Schultze*): MINDORO, Magaran (13448, *Weber*).

Genus **BRONTHISPA** Sharp

depressa BALY,*† Cat. Hisp. (1858), 74, Pl. 6, fig. 4; CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 19.

LUZON, Manila (11902, *Banks*; 15522, *Schultze*); Laguna, Los Baños (*coll. Baker*).

Genus **ONCOCEPHALA** Chevrolat

bicristata CHAP.,† Bull. Ann. Soc. Ent. Belg. (1876), 19, 24.

LUZON, Isabela, Marahuirahui (14839, *Banks*); Cagayan, Sanchez Mira (14950, *Jones*).

Genus **PROMECOTHECA** Blanchard

apicalis WEISE,† Ann. Soc. Ent. Belg. (1911), 55, 75.

TICAO (7472, *McGregor*).

cumingi BALY,*† Cat. Hisp. (1858), 88; WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 146.

LUZON, Manila (455, 2448, *Banks*): PALAWAN, Puerto Princesa (10775, *Schultze*).

cyanipes ERICHS., Nov. Act. Leop. Car. (1834), 16, Suppl. 2, 270, Pl. 39, fig. 10; BALY, Cat. Hisp. (1858), 87, Pl. 7, fig. 2.

LUZON: MINDANAO.

octostriata CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 23.

scorpio THOMS., Rev. Zool. (1856), 117, Pl. 5, fig. 5; BALY, Cat. Hisp. (1858), 89; WEISE, Ann. Soc. Ent. Belg. (1911), 55, 76.

MINDANAO.

Genus *AGONIA* WeiseSubgenus *Agonia* Weise

- weberi* WEISE,† Ann. Soc. Ent. Belg. (1911), 55, 175.
PALAWAN, Iwahig (11929, 16221, *Weber*).

Subgenus *Agoniella* Weise

- apicalis* BALY, Cat. Hisp. (1858), 118.
LUZON.
- banksi* WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 227.
LUZON, Rizal, Montalban Gorge (5346, *Banks*).
- manillensis* WEISE,† Phil. Journ. Sci., Sec. D (1910), 5, 227.
LUZON, Manila (2121, *Schultze and Banks*).
- vandepolli* GESTRO, Ann. Mus. Civ. Genova (1897), 38, 120; WEISE, Phil. Journ. Sci., Sec. D (1910), 5, 146.
LUZON, Manila.

Genus *GONOPHORA* Baly

- apicalis* BALY, Cat. Hisp. (1858), 116.
LUZON, Rizal, Montalban Gorge (5342, *Banks*).
- bimaculata* CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 23; WEISE, Ann. Soc. Ent. Belg. (1911), 55, 77.
MINDANAO.
- chapuisi* BALY, Ent. Month. Mag. (1876), 13, 129.
- femorata* WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 237.
NEGROS, Occidental Negros, Maaao (1611, *Banks*).
- lineata* BALY, Ann. & Mag. Nat. Hist. (1878), V, 1, 42.
SULU ISLANDS.
- maculipennis* GESTRO, Ann. Mus. Civ. Genova (1906), 42, 475.
MINDANAO.
- tibialis* BALY, Ann. & Mag. Nat. Hist. (1878), V, 1, 42.
SULU ISLANDS.

Genus *MONOCHIRUS* Chapuis

- callicanthus* BATES,† Proc. Zool. Soc. London (1866), 354; CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 25.
LUZON, Manila (10550, *Banks*); Laguna, Los Baños (*coll. Baker*).
- moestus* BALY,*† Ann. Mus. Civ. Genova (1888), 662; GEST., Ann. Mus. Civ. Genova (1890), 245; (1897), 73; (1898), 217.
perroteti MOTSCH., Schrenk's Reise Amur-Lande (1861), 2, 238;
WEISE, Deutsche Ent. Zeitschr. (1897), 144.
LUZON, Benguet, Trinidad (8173, *Banks*), Bued River (9883, *Curran*).

Genus *DACTYLISPA* Weise

- bipartita* GUÉR.,*† Voy. Coquille, Zool. (1830), 2, 141; GEST., Ann. Mus. Civ. Genova (1897), 109.
PALAWAN, Iwahig (10846, *Schultze*).

- cladophora* GUÉR.,*† Rev. Zool. (1841), 7.
LUZON, Manila (2138, 2622, *Schultze*; 2671, *Banks*).
- dimidiata* GEST.,† Ann. Mus. Civ. Genova (1885), 177.
BOHOL (6782, *McGregor*).
- infuscata* CHAP.,*† Bull. Ann. Soc. Ent. Belg. (1876), 19, 26.
MINDORO, Magaran (10768, *Schultze*).
- palliat* CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 25.
MINDANAO.
- perroteti* GUÉR., Rev. Zool. (1841), 12; WEISE, Deutsche Ent. Zeitschr. (1897), 144.
- puberula* CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 26.
MINDANAO.
- vittula* CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 25.
LUZON, Laguna, Los Baños (*coll. Baker*): CEBU, Danao (7560, *Smith*).

Genus *PLATYPRIA* Guérin

- ferruginea* WEISE,† Phil. Journ. Sci., Sec. D (1913), 8, 238.
MINDORO, Magaran (13437, *Weber*).
- longispina* CHAP.,† Bull. Ann. Soc. Ent. Belg. (1876), 19, 27.
MINDORO, Magaran (10769, *Schultze*).
- subopaca* CHAP., Bull. Ann. Soc. Ent. Belg. (1876), 19, 27.
MINDANAO.

CERAMBYCIDÆ

PRIONINÆ

Genus *PARANDRA* LatreilleSubgenus *Parandra* Latreille

- janus* BATES,† Ent. Month. Mag. (1875), 12, 47; LANSB., Notes Leyden Mus. (1884), 6, 135; LMR., Ann. Soc. Ent. Belg. (1902), 46, 97; Mém. Soc. Ent. Belg. (1912), 21, 116.
LUZON, Benguet, Irisan (1296, *McGregor*), Baguio (11008, *McGregor*).

Genus *MACROTOMA* ServilleSubgenus *Zooblax* Thomson

- absurda* NEWM., The Entom. (1842), 1, 248; WATERH., Ann. & Mag. Nat. Hist. (1884), 14, 383; LMR., Mém. Soc. Ent. Belg. (1903), 11, 168.
- aegrota* NEWM., The Entom. (1842), 1, 247; LMR., Mém. Soc. Ent. Belg. (1903), 11, 174.
signaticollis WATERH., Ann. & Mag. Nat. Hist. (1884), 14, 378.
- crenata* FABR., Syst. Eleuth. (1801), 2, 264; WATERH., Ann. & Mag. Nat. Hist. (1884), 14, 382; LMR., Mém. Soc. Ent. Belg. (1903), 11, 162; GAH., Fauna Brit. India, Col. (1906), 1, 36, fig. 13.
inscripta WATERH., Ann. & Mag. Nat. Hist. (1884), 14, 380.
LUZON, Tarlac, Gerona (226, *Fernandez*).

luzonum FABR.,† Syst. Ent. (1775), 160; OLIV., Ent. (1795), 4, 10, Pl. 11, fig. 44; NEWM., The Entom. (1842), 1, 247; LMR., Mém. Soc. Ent. Belg. (1903), 11, 176.

celebensis LANSB., Notes Leyden Mus. (1884), 6, 145, ♀.

LUZON, Rizal, Manila (6253, *Mearns*; 6495, *Brown*; 8896, *Schultze*; 11967, *F. Worcester*); Laguna, Los Baños (11127, *Copeland*): MINDORO, Calapan (12467, *K. N. Van Schaick*).

Genus RHAPHIPODUS Serville

Subgenus Rhaphipodus Serville

manillae NEWM.,† The Entom. (1842), 1, 247; LMR., Mém. Soc. Ent. Belg. (1903), 11, 75.

LUZON, Laguna, Los Baños (12556, *Ledyard*); Ilocos Norte, Bangui (17452, *Banks*): MINDANAO, Baganga (13922, *Sanchez*), Davao (16637, *Weber*).

Genus MEGOPIS Serville

Subgenus Baralippton Thomson

cingalensis WHITE,† Cat. Col. Brit. Mus. (1853), 7, 31; Proc. Zool. Soc. London (1853), 27; GAH., Fauna Brit. India, Col. (1906), 1, 46; LMR., Ann. Soc. Ent. Belg. (1909), 159.

♀ *angustata* BATES, Ent. Month. Mag. (1875), 12, 51.

LUZON, Benguet, Mount Mirador (16725, *Sanchez*).

CERAMBYCINÆ

Genus NERICONIA Pascoe

glabricollis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 239.

LUZON, Laguna, Mount Banahao (*coll. Baker*).

Genus NOSERIUS Pascoe

tibialis PASC., Trans. Ent. Soc. London (1857), ii, 4, 95, Pl. 23, fig. 4; (1869), iii, 3, 500.

LUZON, Ambos Camarines (6206, *Barredo*); Ilocos Norte, Dungan Plantation (17463, *Banks*).

Genus COMUSIA Thomson

obriumoides THOMS., Syst. Ceramb. (1864), 250.

obriumoides LACORD., Gen. Col. (1869), 8, 225.

MINDANAO.

Genus XYSTROCERA Serville

globosa OLIV.,† Ent. (1795), 4, 27, Pl. 12, fig. 81; COQUEREL, Ann. Soc. Ent. France (1848), 180, Pl. 7, 4, fig. 2a-b.

LUZON, Manila (8491, *Guerrero*): PALAWAN, Iwahig (12539, *Lamb*).

Genus NORTIA Thomson

cavicollis THOMS., Syst. Ceramb. (1864), 252.

LUZON: MINDANAO.

Genus *PLOCAEDERUS* Thomson

ruficornis NEWM.,† The Entom. (1842), 1, 245.

fulvicornis GUÉR., Icon. Regne Anim., Ins. (1843), 3, 227.

pruinosis PASC., Proc. Zool. Soc. London (1866), 526.

LUZON, Manila (2784, *Banks*; 5327, 5381, 5641, 8955, *Schultze*); Tayabas (8900, *Curran*).

Genus *AEOLESTHES* Gahan

holosericea FABR., Mant. Ins. (1787), 1, 135; GAH., Fauna Brit. India, Col. (1906), 1, 127.

velutinus THOMS., Syst. Ceramb. (1865), 576.

similis GAH., Ann. & Mag. Nat. Hist. (1890), VI, 5, 52.

induta NEWM.,*† The Entom. (1842), 1, 245; PASC., Trans. Ent. Soc. London (1869), iii, 3, 511.

CALAYAN, Babuyan (597, *McGregor*): LUZON, Manila (5191, *Woolley*); Benguet, Cabayan (10472, *Curran*), Baguio (11335, *F. Worcester*): NEGROS, Occidental Negros, Maa (233, *Banks*): PALAWAN, Iwahig (10851, *Schultze*).

Genus *HOPLOCERAMBYX* Thomson

spinicornis NEWM.,† The Entom. (1842), 1, 245; THOMS., Syst. Ceramb. (1865), 230.

morosus PASC., Trans. Ent. Soc. London (1857), ii, 4, 92; (1869), iii, 3, 515.

relictus PASC., Proc. Zool. Soc. London (1866), 528.

LUZON, Bataan, Mount Mariveles (5944, *Foxworthy*; 6486, *Carpenter*), Lamao (6570, 7002, *Cuzner*; 7721, *Curran*; 11903, 12034, 12183, *Alvarez*); Benguet, Cabayan (11505, *McGregor*): NEGROS, Occidental Negros, Faraon (12218, *Curran*).

Genus *DIORTHUS* Gahan

cinereus FABR., Ent. Syst. (1792), 1, 265.

holosericeus OLIV., Ent. (1795), 4, 67, 14, Pl. 17, fig. 127.

inclemens THOMS., Syst. Ceramb. (1865), 576.

simplex WHITE, Cat. Col. Brit. Mus., Longic. (1853), 7, 130; GAH., Ann. & Mag. Nat. Hist. (1891), 7, 27; Fauna Brit. India, Col. (1906), 1, 133, fig. 51.

sordidus PASC., Trans. Ent. Soc. London (1888), 491.

vernicosus PASC., Trans. Ent. Soc. London (1859), ii, 5, 19.

NEGROS, Occidental Negros, Faraon (12214, *Curran*).

Genus *DEROLUS* Gahan

volvulus FABR., Syst. Eleuth. (1801), 2, 271.

demissus PASC., Trans. Ent. Soc. London (1859), ii, 5, 21; GAH., Fauna Brit. India, Col. (1906), 1, 136.

strigicollis DALM., Schönh. Syn. Ins. (1817), 1, 158.

Genus **DIALEGES** Pascoe

- pauper** PASC.,† Trans. Ent. Soc. London (1856), ii, 4, 47, Pl. 16, fig. 7;
GAH., Fauna Brit. India, Col. (1906), 1, 142.
tenuicornis PASC., Trans. Ent. Soc. London (1869), iii, 3, 522.
LUZON, Bataan, Limay (11937, *Alvarez*): NEGROS, Occidental Negros,
Faraon (12213, *Curran*).

Genus **LACHNOPTERUS** Thomson

- auripennis** NEWM.,† The Entom. (1842), 1, 245; THOMS., Syst. Ceramb.
(1865), 232; PASC., Trans. Ent. Soc. London (1869), iii, 3, 523.
aureipennis PASC., Trans. Ent. Soc. London (1859), ii, 5, 84.
TICAO (1098, *McGregor*): SIBUYAN (1905, 7664, *McGregor*): BOHOL
(6780, *McGregor*).
socius GAH., Ann. & Mag. Nat. Hist. (1891), VI, 7, 24.
LUZON, Benguet, Irisan (1158, *McGregor*): MINDORO, Baco River (3146,
McGregor).

Genus **STROMATIUM** Serville

- longicorne** NEWM., The Entom. (1842), 1, 246; GAH., Fauna Brit. India,
Col. (1906), 1, 115.
asperulum WHITE, Cat. Col. Brit. Mus., Longic. (1855), 8, 300;
PASC., Trans. Ent. Soc. London (1869), iii, 3, 532.
LUZON, Manila (3390, *McGregor*); Benguet, Irisan (1065, 1161, *Mc-*
Gregor): TICAO (1153, *McGregor*).

Genus **GNATHOLEA** Thomson

- simplex** GAH.,† Ann. & Mag. Nat. Hist. (1890), VI, 5, 53; Fauna Brit.
India, Col. (1906), 1, 111.
BASILAN (6775, *McGregor*).
stigmatipennis WHITE, Cat. Col. Brit. Mus., Longic. (1855), 2, 203; PASC.,
Trans. Ent. Soc. London (1869), iii, 3, 530.
CALAYAN, Babuyan (600, *McGregor*).

Genus **CERESIU** Newman

- aethiops** NEWM., The Entom. (1842), 1, 247 and 322.
flavipes FABR., Ent. Syst. (1792), 1, 246.
ambiguum NEWM., The Entom. (1842), 1, 246.
simplex GYLH., Schönh. Syn. Ins. (1817), 1, App., 178; FAIRM.,
Rev. Zool. (1850), 1, 62; GAH., Fauna Brit. India, Col. (1906),
1, 162.
LUBANG (7642, *McGregor*).
immit NEWM., The Entom. (1842), 1, 247 and 322.
rarpilum NEWM., The Entom. (1842), 1, 322; PASC., Trans. Ent. Soc.
London (1869), iii, 3, 537.
unicolor FABR., Mant. Ins. (1787), 1, 147; OLIV., Ent. (1795), 4, 68, 38,
Pl. 3, fig. 28.
guttaticole FAIRM., Rev. Mag. Zool. (1850), 2, 63.
LUZON, Manila (238, *Schultze*): TICAO (1453, *McGregor*).

- zeylanicum* WHITE,† Cat. Col. Brit. Mus., Longic. (1855), 2, 246; PASC., Trans. Ent. Soc. London (1869), iii, 3, 538; GAH., Fauna Brit. India, Col. (1906), 1, 158.
 LUZON, Benguet, Irisan (1804, *McGregor*).

Genus **EXAMNES** Pascoe

- philippensis* NEWM., The Entom. (1842), 1, 247.
idoneus PASC., Trans. Ent. Soc. London (1869), iii, 3, 540.
longicornis PASC., Trans. Ent. Soc. London (1869), iii, 3, 540, Pl. 20, fig. 3.

Genus **GELONAETHA** Thomson

- hirta* FAIRM., Rev. Mag. Zool. (1850), 60; GAH., Fauna Brit. India, Col. (1906), 1, 155, fig. 62.
curtipes THOMS., Rev. Mag. Zool. (1878), 13.
obscurus SHARP, Trans. Ent. Soc. London (1878), 204.

Genus **OCALEMIA** Pascoe

- prasina* HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 154.
 LUZON, Benguet, Baguio (1106, *McGregor*; 17055, *Banks*).

Genus **EPANIA** Pascoe

- discolor* PASC.,*† Trans. Ent. Soc. London (1869), iii, 3, 568, Pl. 21, fig. 7.
 LUZON, Manila (2477, *Banks*; 7959, *Foxworthy*); Ilocos Norte, Dungon Plantation (17346, *Banks*).
longicollis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 35, figs. 11, 11a.
 LUZON, Laguna, Los Baños (*Baker*).

Genus **PROTHEMA** Pascoe

- leucaspis* CHEVR., Mém. Soc. Roy. Liège (1861), 4; (1863), 256.

Genus **APHRODISIUM** Thomson

- semiignitum* CHEVR., Rev. Zool. (1841), 227; NEWM., The Entom. (1842), 1, 246.
 BOHOL (6706, *McGregor*).

Genus **CHLORIDOLUM** Thomson

- accensum* NEWM., The Entom. (1842), 1, 246.
addictum NEWM.,† The Entom. (1842), 1, 245.
 CALAYAN, Babuyan (593, *McGregor*).
everetti BATES, Cist. Ent. (1879), 2, 408.
phaetusa WHITE, Cat. Col. Brit. Mus., Longic. (1853), 1, 160.
rugatum NEWM., The Entom. (1842), 1, 246.

Genus **LEONTIUM** Thomson

- thalassinum* THOMS., Syst. Ceramb. (1864), 569.
 MINDANAO.

Genus ANUBIS Thomson

bifasciatus NEWM.,† The Entom. (1842), 1, 246.

manillarum CHEVR., Rev. Zool. (1838), 288.

LUZON, Rizal, Antipolo (7521, *Schultze*), Taytay (11022, *Banks*);
Bataan, Lamao (9141, *Schultze*).

Genus IPOTHALIA Pascoe

femorata PASC., Ann. & Mag. Nat. Hist. (1867), III, 19, 314.

Genus XYLOTRECHUS Chevrolat

phidias NEWM.,† The Entom. (1842), 1, 246; WHITE, Cat. Col. Brit. Mus.,
Longic. (1855), 8, 284.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus PERISSUS Chevrolat

scutellatus CHEVR., Mém. Soc. Roy. Liège (1863), 18, 267.

Genus CHLOROPHORUS Chevrolat

annularis FABR.,*† Mant. Ins. (1787), 1, 156; Ent. Syst. (1794), 1, 352;
LAP. and GORY, Mon. Clyt. (1841), 102, Pl. 19, fig. 121; PASC.,
Trans. Ent. Soc. London (1869), iii, 3, 601; GAH., Fauna Brit.
India, Col. (1906), 1, 261.

LUZON, Manila (3101, 3361, *Schultze*; 3478, *McGregor*; 4742, 4892,
5860, 6399, *Banks*): NEGROS, Occidental Negros, Maaao (235, 6312,
Banks): SIBUYAN (2013, *McGregor*): CEBU, Toledo (9600, *Mc-*
Gregor): BOHOL (6713, *McGregor*): MINDANAO, Camp Keithley
(7306, *Clemens*).

australis LAP. et GORY,*† Mon. Clyt. (1841), 99, Pl. 19, fig. 118; PASC.,
Trans. Ent. Soc. London (1869), iii, 3, 607.

LUZON, Bataan, Lamao (6407, *Cuzner*; 9849, *Curran*); Ilocos Norte,
Dungon Plantation (17352, *Banks*).

incanus NEWM., The Entom. (1842), 1, 246.

manillae AURIV., Arkiv f. Zool. (1911), 7, 6.

LUZON.

nigerrimus CHEVR., Mém. Soc. Roy. Liège (1863), 18, 302.

Genus RHAPHUMA Thomson

fallax CHEVR.,† Mém. Soc. Roy. Liège (1863), 18, 276; GAH., Fauna Brit.
India, Col. (1906), 1, 276.

LUZON, Zambales, Olongapo (7578, *Banks*); Laguna, Los Baños (11767,
Ledyard): PALAWAN, Taytay (17275, *Schultze*).

quadricolor LAP. and GORY, Mon. Clyt. (1841), 104, Pl. 19, fig. 123; THOMS.,
Class. Longic. (1860), 222.

LUZON, Abra, Bucay (7982, *Banks*).

semiclastratus CHEVR., Mém. Soc. Roy. Liège (1863), 18, 289.

Genus PSILOMERUS Chevrolat

brachialis CHEVR., Mém. Soc. Roy. Liège (1863), 18, 258.

Genus **DEMONAX** Thomson

- lineola* CHEVR.,† Mém. Soc. Roy. Liège (1863), 18, 274.
 LUZON, Rizal, Montalban (*coll. Schultze*).
- nigrofasclatus* THOMS., Classif. Ceramb. (1860), 227; CHEVR., Mém. Soc. Roy. Liège (1863), 18, 269; PASC., Trans. Ent. Soc. London (1869), 3, 620.
patronus PASC., Journ. Ent. (1862), 1, 358.
 LUZON, Laguna, Los Baños (*coll. Baker*).
- protogenes* NEWM.,† The Entom. (1842), 1, 246; WHITE, Cat. Col. Brit. Mus., Longic. (1855), 8, 284.
 LUZON, Benguet, Irisan (1160, *McGregor*).
- pudicus* NEWM.,† The Entom. (1842), 1, 246; PASC., Trans. Ent. Soc. London (1869), iii, 3, 631.
 LUZON, Manila (9929, *Banks*).

Genus **SCLETHRUS** Newman

- amoenus* GORY, Mag. Zool. (1832), 9, Pl. 58; NEWM., The Entom. (1842), 1, 247; PASC., Trans. Ent. Soc. London (1869), iii, 3, 619; SCHELF., Proc. Zool. Soc. London (1902), 248, Pl. 19, fig. 11.
- newman!* CHEVR., Mém. Soc. Roy. Liège (1863), 18, 284.
 LUZON, Benguet, Irisan (1174, *McGregor*).

Genus **EPIPEDOCERA** Chevrolat

- lunata* NEWM.,*† The Entom. (1842), 1, 247.
 LUZON, Bataan, Lamao (7848, *Schultze*); Ilocos Norte, Bangui (17473, *Banks*).

Genus **HALME** Pascoe

- spilicórnis* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 237.
 LUZON, Laguna, Mount Banahao (*coll. Baker*).

Genus **CLEOMENES** Thomson

- dihammaphoroides* THOMS., Syst. Ceramb. (1864), 161; PASC., Trans. Ent. Soc. London (1869), iii, 3, 647.
 MINDANAO.

Genus **POLYPHIDA** Pascoe

- monticola* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 238.
 LUZON, Bataan, Limay (*coll. Baker*).

Genus **EURYPHAGUS** Thomson

- pictus* VOET,† Cat. Col. (1778), 2, 11, Pl. 9, fig. 35; PANZ., Cat. Col. (1794), 3, 27, Pl. 9, fig. 35.
bipunctatus SCHÖNH., Syn. Ins. (1817), 1, 459.
maxillosus OLIV., Ent. (1795), 4, 67, 52, Pl. 20, fig. 147; CAST., Hist. Nat. (1840), 2, 430.
 ♂ *quadrinacula* VOET, Cat. Col. (1804-06), 2, 26, Pl. 23, fig. 124.
 ♀ *variabilis* PASC., Ann. & Mag. Nat. Hist. (1860), III, 5, 120; Trans. Ent. Soc. London (1869), iii, 3, 654.

pictus var. *nigricollis* HELLER,† *Phil. Journ. Sci.*, Sec. D (1913), 3, 155.

LUZON, Rizal, Montalban Gorge (9569, *Topping*); Cavite, Silang (1474, *Celestino*); Bataan, Limay (11934, *Alvarez*); Benguet, Irisan (1165, *McGregor*); Cagayan, Tuguegarao (10479, *Curran*): CEBU, Toledo (7427, *McGregor*): BOHOL (6708, *McGregor*): SIBUYAN (1908, *McGregor*): MINDANAO, Camp Keithley (6880, *Clemens*): PALAWAN, Tanabag (5134, *Celestino*), Quinina River (10712, *Schultze*), Taytay (17107, *Schultze*).

Genus DEMODES Newman

immunda NEWM., *The Entom.* (1842), 1, 322; WHITE, *Cat. Col. Brit. Mus.*, Longic. (1855), 2, 8, Pl. 7, fig. 7.

LAMIINÆ

Genus XYLOTELES Newman

discordans NEWM., *The Entom.* (1842), 1, 382.

Genus EUOPLIA Hope

pulchellator WESTW.,† *Proc. Zool. Soc. London* (1837), 128.

argenteo-maculata AURIV., *Ent. Tidskr.* (1887), 8, 96; RITSEMA, *Notes Leyden Mus.* (1888), 10, 198.

LUZON, Manila (3537, *Brown*; 7994, *Schultze*; 8056, *Gilkerson*); Tarlac, Gerona (228, *Fernandez*); Benguet, Baguio (11345, *F. Worcester*).

Genus ANOPLOPHORA Hope

lucipor NEWM.,† *The Entom.* (1842), 1, 275; WESTW., *Cab. Orient. Ent.* (1848), 60, Pl. 29, fig. 7.

LUZON, Bataan, Lamao (9767, *Stevens*; 11536, *Alvarez*; 17002, *Schultze*): MINDORO, Baco River (3153, *McGregor*).

Genus PELARGODERUS Serville

alcanor NEWM.,† *The Entom.* (1842), 1, 277; THOMS., *Arch. Ent.* (1857), 1, 298; PASC., *Trans. Ent. Soc. London* (1865), iii, 3, 278.

LUZON, Cagayan, Aparri (6479, *Williamson*): PALAWAN, Iwahig (12536, *Lamb*), Taytay (17169, *Schultze*).

Genus DIOCHARES Pascoe

mindanaonis HELLER, *Phil. Journ. Sci.*, Sec. D (1915), 10, 240.
MINDANAO, Davao.

Genus EPEPEOTES Pascoe

ambigenus CHEVR.,*† *Rev. Zool.* (1841), 228; DESMAREST, *Voy. La Bonite* (1841), 1, 320, Pl. 2, fig. 38.

LUZON, Benguet, Irisan (1059, *McGregor*); Bataan, Lamao (8883, *Ledyard*).

captiosus PASC.,† *Trans. Ent. Soc. London* (1866), iii, 3, 298.

LUZON, Manila (9558, *Schultze*).

fimbriatus OLIV.,† *Encycl. Méth.* (1792), 7, 460; *Ent.* (1795), 4, 71, Pl. 19, fig. 143; PASC., *Trans. Ent. Soc. London* (1866), iii, 3, 303.

lineator FABR., Syst. Eleuth. (1801), 2, 283.

rhobetor NEWM., The Entom. (1842), 1, 276.

BOHOL (6707, *McGregor*).

plorator NEWM., The Entom. (1842), 1, 276; PASC., Trans. Ent. Soc. London (1866), iii, 3, 302.

Genus *DIHAMMUS* Thomson

antenor NEWM., The Entom. (1842), 1, 277.

fistulator GERM., † Ins. Spec. Nov. (1824), 478; PASC., Trans. Ent. Soc. London (1866), iii, 3, 293.

bianor NEWM., The Entom. (1842), 1, 277.

triangularis DEJ., Cat., 3 ed. (1837).

CALAYAN, Babuyanes (596, *McGregor*): LUZON, Ambos Camarines (9091, *Curran*): NEGROS, Occidental Negros, Bago (6336, *Banks*): MINDANAO, Camp Keithley (6881, *Clemens*), Butuan (8149, *Celestino*): PALAWAN, Iwahig (10850, *Schultze*), Taytay (17088, *Schultze*).

marcipor NEWM., The Entom. (1842), 1, 277.

rhetenor NEWM., The Entom. (1842), 1, 276.

Genus *CEREOPSIUS* Thomson

irregularis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 240, Pl. 1, fig. 11. LUZON, Laguna, Mount Banahao (*coll. Baker*).

luctor NEWM., The Entom. (1842), 1, 276. LUZON, Manila.

praetorius ERICHS., † Nov. Act. Leop. Car. (1834), 16, Suppl. 1, 268, Pl. 39, fig. 6.

LUZON, Manila (1789, *Schultze*); Laguna, Magdalena (243, *Banks*), Los Baños (12554, *Banks*): SAMAR, Catbalogan (8873, *Ledyard*).

quaestor NEWM., The Entom. (1842), 1, 276.

Genus *ANANCYLUS* Dejean

stix HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 241, Pl. 1, fig. 12. LUZON, Laguna, Mount Banahao (*coll. Baker*).

Genus *PLANODES* Newman

quaternarius NEWM., † The Entom. (1842), 1, 323. LUZON, Benguet, Irisan (1155, *McGregor*).

schultzei HELLER, Phil. Journ. Sci., Sec. D (1913), 8, 156, fig. 9. PALAWAN, Iwahig (10842, *Schultze*).

Genus *OTARIONOMUS* Thomson

ilocanus HELLER, Abh. Mus. Dresden (1899), 3, 7.

Genus *PHARSALIA* Thomson

agenor NEWM., † The Entom. (1842), 1, 276; LACORD., Gen. Col. (1869), 9, 348.

SIBUYAN (1903, *McGregor*).

truncatipennis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 36.
LUZON, Laguna, Mount Maquilang (*Baker*).

Genus *NEOPHARSALIA* Role

vagens KANNEG., Notes Leyden Mus. (1891), 13, 189.
PALAWAN, Iwahig (10837, *Schultze*).

Genus *AGNIA* Newman

casta NEWM., The Entom. (1842), 1, 291.
voluptuosa THOMS., Arch. Ent. (1857), 1, 170.
LUZON, Manila.

clara NEWM.,*† The Entom. (1842), 1, 291.
SIBUYAN (1939, *McGregor*): LUZON, Ilocos Norte, Dungon Plantation
(17583, *Banks*).

pubescens AURIV., Ent. Tidskr. (1897), 247, Pl. 3, fig. 3.
PALAWAN.

pulchra AURIV., Ent. Tidskr. (1891), 104.

Genus *EUTHYASTUS* Pascoe

binotatus PASC., Trans. Ent. Soc. London (1866), iii, 3, 253, Pl. 11, fig. 5.
MINDANAO, Zamboanga (8701, *Hutchinson*).

Genus *HISPOMORPHA* Newman

horrida NEWM., The Entom. (1842), 1, 323.

Genus *ACHTHOPHORA* Newman

alma NEWM., The Entom. (1842), 1, 292.
SIBUYAN (1938, *McGregor*).

dactylon PASC., Trans. Ent. Soc. London (1857), ii,*4, 104, Pl. 22, fig. 6;
LACORD., Gen. Col., Atl. (1869), Pl. 98, fig. 5.

tristis NEWM., The Entom. (1842), 1, 292.

Genus *BATOCERA* Castelnau

albofasciata DEGEER,*† Mem. (1775), 5, 106, Pl. 13, fig. 16.
octomaculata FABR., Ent. Syst. (1794), 1, 290.

albofasciata var. *mniszechi* THOMS., Mon. Batoc., Arcan. Nat. (1859), 79.
LUZON, Manila (1842, *Woolley*); Bataan, Lamao (11529, *Curran*;
17003, *Schultze*): NEGROS, Occidental Negros, Bago (3572, *Matti*):
CALAYAN, Babuyanes (1062, *McGregor*): DALUPIRI, Babuyanes
(11572, *McGregor*).

numitor NEWM.,*† The Entom. (1842), 1, 275.

LUZON, Laguna, Magdalena (1745, *Schultze*); Bataan, Limay (11993,
Alvarez); Tarlac, Gerona (225, *Fernandez*); Cagayan, Tuguegarao
(4582, *Williamson*).

roylei HOPE, Trans. Zool. Soc. London (1835), 1, 103, Pl. 15, fig. 1.
calcanus PARRY, Trans. Ent. Soc. London (1845), i, 4, 86.
parryi HOPE, Trans. Ent. Soc. London (1845), i, 4, 77.

MINDANAO, Camp Keithley (6879, 7303, 8766, *Clemens*).

Genus *APRIONA* Chevrolat

aphetor NEWM.,† The Entom. (1842), 1, 275.

LUZON, Manila (2016, *Willyoung*).

latifrons THOMS., Rev. et Mag. Zool. (1878), 59.

LUZON.

multigranula THOMS., Rev. et Mag. Zool. (1878), 59.

rixator NEWM., The Entom. (1842), 1, 275.

LUZON, Sorsogon (9188, *Curran*): MINDANAO, Camp Keithley (6878, *Clemens*).

Genus *GNOMA* Fabricius

jugata NEWM., The Entom. (1842), 1, 299.

luzonica ERICHS.,*† Nov. Act. Leop. Car. (1834), 16, Suppl. 1, Pl. 39, fig. 8.

LUZON, Bataan, Lamao (6571, *Cuzner*; 17005, *Schultze*); Benguet, Irisan (1060, *McGregor*); Cagayan, Tuguegarao (10480, *Curran*): SIBUYAN (1907, *McGregor*): MINDANAO, Agusan River (12520, *Celestino*).

Genus *CACIA* Newman

aspera NEWM., The Entom. (1842), 1, 291.

LUZON.

proteus HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 243, Pl. 1, fig. 16.

proteus var. *disjunctata* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 244, Pl. 1, fig. 15.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

semiluctuosa BLANCH., Voy. Pôle Sud (1853), 4, 302, Pl. 17, fig. 15.

CALAYAN, Babuyanes (640, *McGregor*).

spinigera NEWM.,† The Entom. (1842), 1, 290.

LUZON, Benguet, Irisan (1169, *McGregor*).

ufula HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 243, Pl. 1, fig. 14.

LUZON, Laguna, Mount Banahao (*coll. Baker*).

xenoceroides HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 242, Pl. 1, fig. 13.

LUZON, Laguna, Mount Banahao (*coll. Baker*).

Genus *AGELASTA* Newman

mediofasciata HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 157, fig. 10.

SIBUYAN (1902, *McGregor*).

mystica PASC., Ann. & Mag. Nat. Hist. (1869), IV, 4, 204.

LUZON.

transversa NEWM., The Entom. (1842), 1, 288.

Genus *COPTOPS* Serville

tetrica NEWM.,† The Entom. (1842), 1, 288.

TICAO (1151, *McGregor*): CAMIGUIN, Babuyanes (7810, *McGregor*): MINDORO, Bongabon (8375, *Schultze*): PALAWAN, Iwahig (12538, *Lamb*), Taytay (17098, *Schultze*).

Genus CHOEROMORPHA Dejean

trifasciata NEWM., † The Entom. (1842), 1, 289.
BOHOL (6712, *McGregor*).

Genus CLYZOMEDUS Pascoe

fastidiosus BOISD., in litt.
LUZON, Benguet, Irisan (1061, *McGregor*): NEGROS, Occidental Negros,
Bago (6314, *Banks*): PALAWAN, Taytay (17099, *Schultze*).

Genus XYLORRHIZA Castelnau

adusta WIEDEM., Zool. Mag. (1819), 1, 182.
venosa CASTELN., Hist. Nat. (1845), 2, 476; PASC., Trans. Ent.
Soc. London (1865), iii, 3, 162.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus OLENECAMPTUS Chevrolat

bilobus FABR., † Syst. Eleuth. (1801), 2, 324; BOISD., Voy. de l'Astrolabe
(1835), 2, 527; ERICHS., Nov. Act. Leop. Car. (1834), 16, 269,
Pl. 39, fig. 9; PASC., Trans. Ent. Soc. London (1866), iii, 3, 316.
serratus CHEVR., Mag. Zool. (1835), 9, 134.
sewnotatus BUQUET, Dej., Cat., 3 ed. (1837), 371.
CALAYAN, Babuyanes (598, *McGregor*): SQUIJOR (8975, *Celestino*):
SULU (13198, *Overman*): PALAWAN, Taytay (17191, *Schultze*).
optatus PASC., † Proc. Zool. Soc. London (1866), 253; Trans. Ent. Soc.
London (1866), iii, 3, 317; LACORD., Gen. Col., Atl. (1872), 9,
11, Pl. 101, fig. 4a.
LUZON, Bataan, Lamao (8882, *Ledyard*; 9275, *Stevens*).

Genus NYCTIMENE Thomson

vittata PASC., Trans. Ent. Soc. London (1866), iii, 3, 331.
LUZON, Laguna, Los Baños (*coll. Baker*).

Genus HOMONOEIA Newman

aliena NEWM., The Entom. (1842), 1, 321; WHITE, Cat. Col. Brit. Mus.,
Longic. (1855), 8, 346; LACORD., Gen. Col. (1872), 9, 474.
bilinea NEWM., The Entom. (1842), 1, 320; WHITE, Cat. Col. Brit. Mus.,
Longic. (1855), 8, 345.
fornicata NEWM., The Entom. (1842), 1, 321; WHITE, Cat. Col. Brit. Mus.,
Longic. (1855), 8, 345.
longimana WESTW., Arcan. Ent. (1843), 1, 58, Pl. 15, fig. 3.
pannosa NEWM., The Entom. (1842), 1, 320; WHITE, Cat. Col. Brit. Mus.,
Longic. (1855), 8, 345.
patrona NEWM., The Entom. (1842), 1, 319; WHITE, Cat. Col. Brit. Mus.,
Longic. (1855), 8, 344, Pl. 7, fig. 8.
praecisa NEWM., The Entom. (1842), 1, 320; WHITE, Cat. Col. Brit. Mus.,
Longic. (1855), 8, 344.

Genus **HETEROCLITOMORPHA** Blanchard

simplex LACORD., Gen. Col. (1872), 9, 476.

Genus **ICTHYODES** Newman

biguttula NEWM., The Entom. (1842), 1, 321; WHITE, Cat. Col. Brit. Mus., Longic. (1855), 8, 2, Pl. 7, fig. 9.

CALAYAN, Babuyanes (595, *McGregor*).

Genus **HABRYNA** Newman

coenosa NEWM.,† The Entom. (1842), 1, 289; WESTW., Trans. Ent. Soc. London (1863), iii, 1, 628, Pl. 25, fig. 3a-b.

LUZON, Manila (4395, *Banks*); Rizal, Montalban Gorge (5296, *Merrill*); Bataan, Lamao (17006, *Schultze*): NEGROS, Occidental Negros, Maaos (3789, *Banks*): POLILLO (12486, *McGregor*).

comosa NEWM., The Entom. (1842), 1, 323.

Genus **EUCLEA** Newman

albata NEWM., The Entom. (1842), 1, 290; LACORD., Gen. Col., Atl. (1872), 9, 11, Pl. 102, fig. 4a.

LUZON.

capito PASC.,*† Trans. Ent. Soc. London (1865), iii, 3, 149.

LUZON, Manila (2029, *D. C. Worcester*; 7740, *Schultze*; 12179, *Banks*); Bataan, Lamao (9791, *Stevens*; 17001, *Schultze*; 9845, *Curran*); Benguet, Bued River (9879, *Curran*): DALUPIRI, Babuyanes (11569, *McGregor*).

irrorata NEWM.,† The Entom. (1842), 1, 290.

LUZON, Laguna, Paete (*McGregor*).

mesoleuca PASC.,† Trans. Ent. Soc. London (1865), iii, 3, 150.

SIBUYAN (1915, *McGregor*).

rhombifera HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 158, fig. 11.

TICAO (1099, 1448, *McGregor*): NEGROS, Occidental Negros, Faraon (12209, *Curran*).

ruficollis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 244.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

tagala HELLER,† Abh. Mus. Dresden (1899), 7, No. 8, 6.

MINDANAO, Davao (16779, *Weber*).

Genus **PROTEUCLEA** Heller

laterivitta HELLER,† Phil. Journ. Sci., Sec. D (1915), 10, 245, Pl. 1, fig. 17.

LUZON, Laguna, Mount Banahao (*coll. Baker*), Paete (*McGregor*).

Genus **PRAONETHA** Pascoe

bigibbera NEWM., The Entom. (1842), 1, 323.

LUZON, Manila (2629, 4512, *Schultze*); Bataan, Lamao (9826, *Stevens*): CALAYAN, Babuyanes (599, *McGregor*).

camura NEWM., The Entom. (1842), 1, 371.

commixta NEWM., The Entom. (1842), 1, 381.

digesta NEWM., The Entom. (1842), 1, 370.

MINDORO, Baco River (3147, *McGregor*).

hybrida NEWM., The Entom. (1842), 1, 371.

MINDORO, Baco River (3143, *McGregor*): MINDANAO, Butuan (8148, *Celestino*).

ignobilis NEWM., The Entom. (1842), 1, 382.

imbuta NEWM., The Entom. (1842), 1, 381.

immista NEWM., The Entom. (1842), 1, 382.

jacta NEWM., The Entom. (1842), 1, 381.

vitticollis NEWM., The Entom. (1842), 1, 370.

Genus MICROLOPHIA Newman

dentipes NEWM., The Entom. (1842), 1, 383.

eximia NEWM., The Entom. (1842), 1, 298; WESTW., Cab. Orient. Ent. (1848), 60, Pl. 29, fig. 5; Trans. Ent. Soc. London (1863), iii, 1, 629, Pl. 24, figs. 1, 2, 6; Pl. 25, fig. 1.

LUZON, Isabela, Lapauan (11600, *D. C. Worcester*).

fausta NEWM., The Entom. (1842), 1, 289; WESTW., Trans. Ent. Soc. London (1863), iii, 1, 628, Pl. 25, fig. 4.

ignava NEWM., The Entom. (1842), 1, 383.

newmani WESTW., Trans. Ent. Soc. London (1863), iii, 1, 631, Pl. 25, fig. 5.
LUZON, Manila.

notha NEWM., The Entom. (1842), 1, 290; PASC., Journ. Ent. (1860), 1, 342; WESTW., Trans. Ent. Soc. London (1863), iii, 1, 632, Pl. 25, fig. 2; LACORD., Gen. Col., Atl. (1872), 11, Pl. 103, fig. 1a.

ocellifera WESTW., Trans. Ent. Soc. London (1863), iii, 1, Pl. 24, fig. 5a-c;
LACORD., Gen. Col. (1872), 9, 549.

DALUPIRI, Babuyan (11580, *McGregor*).

pellucida NEWM., The Entom. (1842), 1, 383.

semperi WESTW., Trans. Ent. Soc. London (1863), iii, 1, 630, Pl. 24, fig. 3a.

Genus DOLIOPS Waterhouse

curculionoides WATERH., Proc. Ent. Soc. London (1841), 22; Ann. & Mag. Nat. Hist. (1841), I, 8, 222; WESTW., Arcan. Ent. (1845), 1, 57, Pl. 15, fig. 1.

geometrica WATERH., Proc. Ent. Soc. London (1841), 45.

Genus ACRONIA Westwood

perelegans WESTW., Trans. Ent. Soc. London (1863), iii, 1, 633, Pl. 24, fig. 4a-f.

LUZON, Tayabas, Casiguran.

Genus PROSOPLUS Blanchard

bankii FABR., † Syst. Ent. (1775), 176.

insularis PASC., Trans. Ent. Soc. London (1859), ii, 5, 40.

mutans SHARP, Trans. Ent. Soc. London (1878), 209.

CALAYAN, Babuyan (709, *McGregor*): LUZON, Manila (8026, 9646, *Schultze*; 8108, *Banks*; 9579, *McGregor*): CEBU, Toledo (6768, *McGregor*): BOHOL (6710, *McGregor*).

Genus **STHENIAS** Castelnau

varius OLIV.,*† *Encycl. Méth.* (1792), 7, 467.

crocatus OLIV., *Ent.* (1795), 4, 92, Pl. 12, fig. 80a-b.

jucundus NEWM., *The Entom.* (1842), 1, 292.

LUZON, Laguna, Los Baños (11766, *Ledyard*); Rizal, Montalban (*coll. Schultze*).

Genus **APOMECYNA** Serville

proba NEWM., *The Entom.* (1842), 1, 299.

quadrifasciata THOMS.,† *Physis* (1867), 1, 6, 159.

LUZON, Manila (231, 8010, *Schultze*; 11885, *Banks*); Cagayan, Ilagan (9788, *Stevens*).

tigrina THOMS., *Arch. Ent.* (1857), 1, 343.

NEGROS, Occidental Negros, Maa (8008, *Banks*).

Genus **DIAXENES** Waterhouse

taylori WATERH., *Ann. & Mag. Nat. Hist.* (1884), V, 13, 128.

Genus **PLOCIA** Newman

mixta NEWM., *The Entom.* (1842), 1, 292.

LUZON, Manila.

notata NEWM.,† *The Entom.* (1842), 1, 292; LACORD., *Gen. Col., Atl.* (1872), 9, 11, Pl. 104, fig. 3a.

LUZON, Laguna, Los Baños (11765, *Ledyard*): MINDORO, Mount Halcon (6423, *Merrill*): POLILLO (12483, *McGregor*): NEGROS, Occidental Negros, Mount Canlaon (8004, *Banks*).

Genus **SYBRA** Pascoe

alternans WIEDEM.,† *Lacord. Gen. Col.* (1872), 9, 616.

LUZON, Manila (229, 429, 9647, *Schultze*): PALAWAN, Iwahig (10714, *Schultze*).

Genus **MIMOMORPHA** Newman

clytiformis NEWM., *The Entom.* (1842), 1, 323.

Genus **PACHYPEZA** Serville

trivittata NEWM., *The Entom.* (1842), 1, 382.

Genus **POTHYNE** Thomson

capito PASC.,† *Trans. Ent. Soc. London* (1866), iii, 3, 327; LACORD., *Gen. Col., Atl.* (1872), 9, 11, Pl. 105, fig. 4.

LUZON, Bataan, Lamao (9792, *Stevens*).

Genus **HIPPOPSIS** Serville

camuripes NEWM., *The Entom.* (1842), 1, 382.

Genus **TETRAGLENES** Newman

- insignis* NEWM., † The Entom. (1842), 1, 300; WHITE, Ann. & Mag. Nat. Hist. (1846), 18, 49, Pl. 1, fig. 5.
LUZON, Manila (3358, *Schultze*).

Genus **EPAPHRA** Newman

- valga* NEWM., † The Entom. (1842), 1, 301; LACORD., Gen. Col., Atl. (1872), 9, 11, Pl. 106, fig. 1a.
LUZON, Benguet, Baguio (1107, *McGregor*; 11339, *F. Worcester*).

Genus **OSTEDES** Pascoe

- pauperata* PASC., † Trans. Ent. Soc. London (1861), ii, 5, 44, Pl. 2, fig. 1; (1864), iii, 3, 15.
SIBUYAN (1909, *McGregor*).

Genus **RONDIBILIS** Thomson

- simplex* PASC., Trans. Ent. Soc. London (1864), iii, 3, 14.
PALAWAN.
spinosula PASC., *† Journ. Ent. (1860), 1, 62; Trans. Ent. Soc. London (1864), iii, 3, 14.
SIBUYAN (1917, 7449, *McGregor*): LUZON, Ilocos Norte, Dungon Plantation (17593, *Banks*).

Genus **EOPORIS** Pascoe

- elegans* PASC., *† Trans. Ent. Soc. London (1864), iii, 3, 16, Pl. 1, fig. 6.
LUZON, Manila (10306, *Ledyard*); Ilocos Norte, Dungon Plantation (17451, *Banks*): CALAYAN, Babuyan (602, *McGregor*): NEGROS, Occidental Negros, Maa (318, *Banks*): PALAWAN, Iwahig (12537, *Lamb*).

Genus **XYASTE** Pascoe

- trigonocephala* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 247, Pl. 1, figs. 18-19.
LUZON, Laguna, Mount Banahao (*coll. Baker*).
uniformis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 245.
LUZON, Laguna, Mount Banahao (*coll. Baker*).
varioscapus HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 246.
LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus **SERIXIA** Pascoe

- literata* PASC., Trans. Ent. Soc. London (1858), ii, 4, 255, Pl. 25, fig. 9; (1864), iii, 3, 340.
PALAWAN, Iwahig (11753, *Weber*).

Genus **GLENEA** Newman

- albonotata* NEWM., The Entom. (1842), 1, 319.
leucospilota WESTW., Arcan. Ent. (1845), 1, 57, Pl. 15, fig. 2.
LUZON, Manila.

- ana* THOMS., Arch. Ent. (1857), 1, 145.
TICAO (1150, *McGregor*).
- aphrodite* THOMS., Syst. Ceramb. (1864), 561.
MINDANAO.
- astarte* THOMS., Syst. Ceramb. (1864), 562.
NEGROS, Occidental Negros, Maaao (322, *Banks*).
- beatrice* THOMS., Rev. Zool. (1879), 4.
MINDANAO.
- bivittata* AURIV., Arkiv Zool. (1904), 1, 326.
PALAWAN, Quinina River (10713, *Schultze*), Mount Capoas (12266, 12386, *Weber*), Iwahig (13224, *Lamb*).
- cinerea* THOMS., Syst. Ceramb. (1864), 565.
LUZON, Manila.
- colobothecoides* THOMS., Syst. Ceramb. (1864), 562.
MINDANAO.
- concinna* NEWM., The Entom. (1842), 1, 301.
LUZON, Manila.
- coryphaea* THOMS., Syst. Ceramb. (1864), 563.
MINDANAO.
- cylindrepomoides* THOMS., Syst. Ceramb. (1864), 564.
LUZON, Manila.
- elegans* OLIV., Ent. (1795), 4, 68, 15, Pl. 4, fig. 40; PASC., Trans. Ent. Soc. London (1867), iii, 3, 374.
- exulta* NEWM., The Entom. (1842), 1, 302; PASC., Trans. Ent. Soc. London (1867), iii, 3, 401.
viridipustulata THOMS., Class. Longic. (1860), 50.
LUZON, Manila.
- glauca* NEWM., The Entom. (1842), 1, 302.
LUZON, Manila.
- kraatzii* THOMS., Syst. Ceramb. (1864), 562.
MINDANAO.
- lepida* NEWM., The Entom. (1842), 1, 301.
LUZON, Manila.
- lineella* THOMS., Syst. Ceramb. (1864), 563.
MINDANAO.
- lusoria* PASC., Trans. Ent. Soc. London (1867), iii, 3, 405.
- lycoris* THOMS., Syst. Ceramb. (1864), 563.
MINDANAO.
- magica* THOMS., Syst. Ceramb. (1864), 563.
MINDANAO.
- maura* PASC., Trans. Ent. Soc. London (1867), iii, 3, 405.
MINDANAO, Agusan River (12528, *Celestino*).
- ochraevittata* THOMS., Syst. Ceramb. (1864), 565; PASC., Trans. Ent. Soc. London (1867), iii, 3, 386.

palavensis AURIV.,† Arkiv Zool. (1904), 1, 325.

PALAWAN, Iwahig (10711, *Schultze*; 11639, 11750, *Weber*; 12540, *Lamb*).

picta WEBER,† Obs. Ent. (1801), 1, 89; FABR., Syst. Eleuth. (1801), 2, 306; CAST., Hist. Nat. (1840), 49; PASC., Trans. Ent. Soc. London (1867), iii, 3, 373, Pl. 17, fig. 6; LACORD., Gen. Col., Atl. (1872), 11, Pl. 109, fig. 3a.

LUZON, Laguna, Los Baños (11770, *Ledyard*): SAMAR, Catbalogan (8874, *Ledyard*): BOHOL (6709, *McGregor*).

regularis NEWM.,† The Entom. (1842), 1, 302.

LUZON, Laguna, Mount Maquiling (17815, *Baker*).

severa THOMS., Syst. Ceramb. (1864), 565.

MINDANAO.

stellata THOMS., Syst. Ceramb. (1864), 563.

MINDANAO.

suavis NEWM., The Entom. (1842), 1, 302.

LUZON.

varifascia THOMS., Syst. Ceramb. (1864), 562.

MINDANAO.

versuta NEWM., The Entom. (1842), 1, 302.

LUZON, Benguet, Irisan (1159, *McGregor*): BOHOL (6711, *McGregor*).

Genus MORAECAMUS Thomson

cosmopolita THOMS., Arch. Ent. (1857), 1, 146.

LUZON.

ustulata ERICHS.,† Nov. Act. Leop. Car. (1834), 16, 270.

LUZON, Bataan, Lamao (7847, *Schultze*); Benguet, Irisan (1170, 1479, *McGregor*), Baguio (11018, *McGregor*), Cabayan (11501, 11434, *McGregor*); Cagayan, Ilagan (9776, *Stevens*): TICA0 (1451, *McGregor*): NEGROS, Occidental Negros, Maa0 (241, 6338, *Banks*): PALAWAN, Iwahig (10841, *Schultze*; 11643, *Weber*); Bacuit (12326, *Weber*).

Genus OBEREA Mulsant

albocuspis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 42.

LUZON, Laguna, Los Baños (*coll. Baker*).

balineae HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 43.

LUZON, Laguna, Los Baños (*coll. Baker*).

demissa NEWM., The Entom. (1842), 1, 319; HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 38.

erythrostroma HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 38.

LUZON, Laguna, Los Baños (*coll. Baker*).

flavoterminata HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 41.

LUZON, Laguna, Los Baños (*coll. Baker*).

macilenta NEWM., The Entom. (1842), 1, 318; PASC., Trans. Ent. Soc. London (1867), iii, 3, 421; HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 38.

- makilingi** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 40.
LUZON, Laguna, Mount Maquiling (*coll. Baker*).
- melanostoma** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 39.
LUZON, Laguna, Mount Maquiling (*coll. Baker*).
- nicholitzii** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 44.
MINDANAO, Davao (*Micholitz*).
- mimetica** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 44.
LUZON.
- punctiventris** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 43.
LUZON.
- quianga** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 40.
MINDANAO, Davao (*Micholitz*).
- schadenbergi** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 39.
- seminigra** CHEVR., Rev. Zool. (1841), 1, 228; LACORD., Gen. Col. (1872), 9, 866.
LUZON, Manila (3095, *Schultze*); Tarlac, Gerona (246, *Fernandez*).

Genus **ASTATHES** Newman

- bigemmata** THOMS., Syst. Ceramb. (1865), 558; GAH., Trans. Ent. Soc. London (1901), 40.
MINDORO, Calapan (637, *McGregor*).
- bimaculata** FABR., Ent. Syst. (1792), 1, 263.
externa PASC., Trans. Ent. Soc. London (1859), ii, 5, 46.
LUZON, Cagayan, Ilagan (9774, *Stevens*).
- fasciata** GAH., Trans. Ent. Soc. London (1901), 58.
levis var. *B. NEWM.*, The Entom. (1842), 1, 299.
- levis** NEWM.,† The Entom. (1842), 1, 299.
divisa PASC., Trans. Ent. Soc. London (1859), ii, 5, 47.
- levis** var. **gallerucoides** THOMS., Syst. Ceramb. (1865), 557.
- levis** var. **basalis** THOMS., Syst. Ceramb. (1865), 557.
casta THOMS., Syst. Ceramb. (1865), 538.
LUZON, Benguet, Irisan (1164, *McGregor*); Tarlac, Pura (1728, *Fernandez*).
- mniszewski** THOMS., Arch. Ent. (1857), 1, 50.
perplexa var. *p. NEWM.*, The Entom. (1842), 1, 299.
LUZON, Bataan, Lamao (9789, *Stevens*); Ticao (1452, *McGregor*).
- perplexa** NEWM., The Entom. (1842), 1, 299.
illigeri THOMS., Syst. Ceramb. (1865), App., 558.
LUZON, Benguet, Irisan (1162, *McGregor*); Bataan, Lamao (12032, *Stevens*).
- plagiata** GAH.,† Trans. Ent. Soc. London (1901), 50.
levis var. *p. NEWM.*, The Entom. (1842), 1, 299.
LUZON, Laguna, Los Baños (11768, *Ledyard*).
- posticata** GAH., Trans. Ent. Soc. London (1901), 40.
perplexa var. *B. NEWM.*, The Entom. (1842), 1, 299.

Genus **CHREONOMA** Pascoe

dapsilis NEWM., The Entom. (1842), 1, 300.

TICAO (1100, *McGregor*).

dilecta NEWM., The Entom. (1842), 1, 300.

SIBUYAN (1916, *McGregor*).

pallida THOMS.,† Syst. Ceramb. (1865), 559.

kraatzii THOMS., Syst. Ceramb. (1865), 559.

LUZON, Benguet, Irisan (6382, *McGregor*).

puncticollis THOMS., Syst. Ceramb. (1865), 559.

Genus **EUSTATHES** Newman

flava NEWM.,† The Entom. (1842), 1, 300.

LUZON, Benguet, Irisan (1171, *McGregor*); Cagayan, Tuguegarao (4587, *Williamson*).

ANTHRIBIDÆ

Genus **EUGIGAS** Thomson

whiteheadi JORD.,† Stett. Ent. Zeitg. (1895), 133.

LUZON, Benguet, Irisan River (1089, *McGregor*): MINDORO, Baco River (3175, *McGregor*).

Genus **MECOTROPIS** Lacordaire

coelestis JORD., Nov. Zool. (1898), 360.

SAMAR.

nigropictus JORD.,† Stett. Ent. Zeitg. (1895), 135.

LUZON, Tayabas (8898, *Curran*).

samarensis JORD., Nov. Zool. (1898), 361.

SAMAR.

spilosa JORD., Nov. Zool. (1903), 415.

PALAWAN.

whiteheadi JORD., Nov. Zool. (1898), 361.

SAMAR.

Genus **MECOCERUS** Schönherr

basalis JORD.,† Nov. Zool. (1894), 1, 598.

FUGA, Babuyan (1262, *McGregor*): MINDANAO, Agusan River (13704, *F. Worcester*); Davao (16521, *Weber*).

gibbifer JORD., Stett. Ent. Zeitg. (1895), 138.

guttata JORD., Nov. Zool. (1903), 10, 427.

guttata subsp. **jordani** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 34.

LUZON, Laguna, Los Baños (*Baker*).

philippinensis JORD.,† Stett. Ent. Zeitg. (1895), 137.

LUZON, Benguet, Irisan River (1087, *McGregor*); Tayabas, Mauban (8736, *Curran*); Bataan, Lamao (743, *Martin*): POLILLO (12479, *McGregor*).

Genus *MECOCERINA* Jordan

xenoceroide JORD., Stett. Ent. Zeitg. (1895), 165.
LUZON.

Genus *SINTOR* Schönherr

philippinensis JORD.,† Stett. Ent. Zeitg. (1895), 141.
LUZON, Tarlac (4687, *Banks*); Nueva Ecija, Cabanatuan (9552, *McGregor*).
superciliaris JORD., Stett. Ent. Zeitg. (1895), 375.
LUZON.

Genus *ACORYNUS* Schönherr

anal JORD., Stett. Ent. Zeitg. (1895), 157.
LUZON.
cineraceus JORD., Stett. Ent. Zeitg. (1895), 158.
emarginatus JORD., Stett. Ent. Zeitg. (1895), 148.
ligatus JORD., Nov. Zool. (1903), 421.
luzonicus JORD., Stett. Ent. Zeitg. (1895), 156.
LUZON.
pallipes JORD., Stett. Ent. Zeitg. (1895), 159.
LUZON.
pardus JORD., Stett. Ent. Zeitg. (1895), 380.
LUZON.
samaranus JORD., Nov. Zool. (1898), 364.
CALAYAN, Babuyan (658, *McGregor*).
whiteheadi JORD., Nov. Zool. (1898), 364.
SAMAR.

Genus *LITOCERUS* Schönherr

gemellus JORD., Stett. Ent. Zeitg. (1895), 381.
inermis JORD., Stett. Ent. Zeitg. (1895), 383.
paviei LESNE,† Bull. Ann. Soc. Ent. France (1891), 91.
LUZON, Laguna, Calauang (14207, *McGregor*): MINDANAO, Camp Keithley (7301, *Clemens*).
philippinensis JORD.,† Stett. Ent. Zeitg. (1895), 144.
LUZON, Laguna, Calauang (14221, *McGregor*): MINDORO, Baco River (3384, *McGregor*): BOHOL (6719, *McGregor*): MINDANAO, Agusan River (13684, *Schultze*).
plagiatus JORD., Stett. Ent. Zeitg. (1895), 145.
LUZON.

Genus *PLINTHERIA* Pascoe

convexa JORD., Nov. Zool. (1898), 362.
LEYTE.

Genus *PHAEOCHROTES* Pascoe

porcellus PASC.,† Ann. & Mag. Nat. Hist. (1860), III, 5, 42, Pl. 1.
LUZON, Manila (2406, 5974, *Banks*); Bataan, Lamao (9843, *Stevens*):
NEGROS, Occidental Negros, Mailum (6295, *Banks*).

Genus **STRABOSCOPUS** Lacordaire

tessellatus EYD.,† Rev. Zool. (1839), 265.

philippinensis MOTSCH., Bull. Mosc. (1874), 240.

CALAYAN, Babuyanes (6532, *McGregor*): FUGA, Babuyanes (611, *McGregor*): LUZON, Benguet, Irian (1799, *McGregor*): PALAWAN, Mount Capoas (12382, *Weber*).

Genus **NESSIARA** Pascoe

histrio PASC., Proc. Ent. Soc. London (1868), 11; PASC., Ann. & Mag. Nat. Hist. (1871), 359, Pl. 14, fig. 2.

robusta JORD., Stett. Ent. Zeitg. (1895), 389.

sellata JORD.,† Nov. Zool. (1894), 630.

MINDORO, Baco River (3177, *McGregor*): MINDANAO, Zamboanga (8697, *Hutchinson*).

variegata JORD., Stett. Ent. Zeitg. (1895), 388.

Genus **HUCUS** Pascoe

lineatocollis JORD., Stett. Ent. Zeitg. (1895), 161.
LUZON.

Genus **PHAULIMIA** Pascoe

alternata JORD., Stett. Ent. Zeitg. (1895), 392.

Genus **SYMPAECTOR** Kirsch

whiteheadi JORD., Stett. Ent. Zeitg. (1895), 377.

NEGROS, Occidental Negros, Maaos (326, *Banks*).

Genus **MYCTEIS** Pascoe

marginicollis PASC., Ann. & Mag. Nat. Hist. (1860), III, 5, 44, Pl. 1.
LUZON, Benguet, Irian (7005, *McGregor*).

Genus **XENOCERUS** Schönherr

basilanus JORD., Nov. Zool. (1903), 428.
BASILAN.

compressicornis JORD.,† Nov. Zool. (1894), 644.

MINDANAO, Agusan River (13660, *Schultze*): NEGROS, Occidental Negros, Mount Canlaon (6248, *Banks*).

fasciatus JORD., Nov. Zool. (1898), 368.
SAMAR.

latifasciatus JORD., Nov. Zool. (1894), 645.

maculatus JORD., Nov. Zool. (1898), 369.
LEYTE.

molitor JORD., Stett. Ent. Zeitg. (1895), 185.
LUZON.

puncticollis JORD.,† Nov. Zool. (1894), 642.

CALAYAN, Babuyanes (1063, *McGregor*): POLILLO (12480, *McGregor*).

samaranus JORD., Nov. Zool. (1898), 367.

SAMAR.

scalaris JORD., Nov. Zool. (1894), 640; Stett. Ent. Zeitg. (1895), 184.

striatus JORD., Nov. Zool. (1894), 643.

varians JORD., Nov. Zool. (1898), 368.

varians ab. *furcifer* JORD., Nov. Zool. (1898), 368.

varians ab. *interruptus* JORD., Nov. Zool. (1898), 368.

LEYTE.

whiteheadi JORD., Nov. Zool. (1898), 370.

LEYTE.

Genus **XYLINADES** Latreille

philippinensis JORD.,† Stett. Ent. Zeitg. (1895), 255.

LUZON, Bataan, Lamao (6487, *Carpenter*).

whiteheadi JORD., Nov. Zool. (1898), 366.

SAMAR.

Genus **EUCORYNUS** Schönherr

crassicornis FABR.,† Syst. Eleuth. (1801), 2, 407.

setosulus PASC., Ann. & Mag. Nat. Hist. (1859), IV, 3, 434.

CALAYAN, Babuyanes (647, *McGregor*): LUZON, Benguet, Irian River (1800, *McGregor*): MINDORO, Mangarin (10765, *Schultze*): TICA0 (9611, *McGregor*): SIBUYAN (7668, *McGregor*): NEGROS, Occidental Negros, Maa0 (1545, *Banks*): PALAWAN, Bacuit (12323, *Weber*).

Genus **DENDROTRIGUS** Jekel

hypocrita JEKEL,† Ins. Saund. (1855), 1, 82, Pl. 2, fig. 1a.

MINDORO, Baco River (3176, *McGregor*).

Genus **ANTHRIBUS** Fabricius

wallacei PASC., Ann. & Mag. Nat. Hist. (1860), III, 5, 47.

philippinensis JORD., Nov. Zool. (1904), 235.

LUZON, Laguna, Los Baños (12558, *Ledyard*).

Genus **BASITROPIS** Jekel

lutosa JORD., Stett. Ent. Zeitg. (1895), 194.

pardalis JORD., Stett. Ent. Zeitg. (1895), 393.

Genus **OZOTOMERUS** Perroud

discoidalis JORD., Stett. Ent. Zeitg. (1895), 196.

Genus **PHLOEOBIUS** Schönherr

albescens JORD.,† Stett. Ent. Zeitg. (1895), 198.

LUZON, Manila (428); Bataan, Lamao (16976): PALAWAN, Taytay (17177, *Schultze*).

alternans WIEDEM., Zool. Mag. (1822), 1, 3, 172; FAHRS., Schönh. Gen. Curc. (1839), 5, 240.

LUZON, Manila (3174, 3296, *Schultze*): NEGROS, Occidental Negros, Bago (6271, *Banks*).

pallipes JORD., † Stett. Ent. Zeitg. (1895), 197.

LUZON, Manila (2710, *Banks*): PALAWAN, Taytay (17178, *Schultze*).

Genus **APOLECTA** Pascoe

fasciata JORD., Stett. Ent. Zeitg. (1895), 180.

LUZON.

maculata JORD., Stett. Ent. Zeitg. (1895), 264.

samarana JORD., Nov. Zool. (1898), 373.

SAMAR.

Genus **ARAEOCORYNUS** Jekel

cumingi JEKEL, † Ins. Saund. (1855), 1, 152, Pl. 1, fig. 6, a-b.

LUZON, Tayabas, Mauban (8906, *Curran*).

Genus **ARAEOCERUS** Schönherr

fasciculatus DEGEER, † Ins. (1775), 5, 276, Pl. 16, fig. 12; WOLL., Ann. & Mag. Nat. Hist. (1870), 5, 18; LUCAS, Ann. Soc. Ent. France (1861), 399.

cacao FABR., Syst. Ent. (1775), 64; OLIV., Ent. (1795), 4, 15, Pl. 2, fig. 21 a-b.

LUZON, Manila (2758, *Schultze*); Bataan, Lamao (9284, *Stevens*): BOHOL, Sevilla (6720, *Celestino*): NEGROS, Occidental Negros, Bago (1388, 6272, *Banks*).

BRENTHIDÆ

BRENTHINÆ

Genus **CALODROMUS** Guérin

mellyi GUÉR., Mag. Zool. (1832), Pl. 34; BOHEM., Act. Holm. (1837), Pl. 6, figs. 1-4; SCHÖNH., Gen. Cur. (1840), 5, 577; WESTW., Cab. Or. Ent. (1848), Pl. 15, figs. 4-5.

LUZON, Laguna, Los Baños (16095, *Jones*).

Genus **CYPHAGOGUS** Parry

whitei WESTW., Cab. Or. Ent. (1848), 32, Pl. 15, fig. 6.

LUZON, Rizal, Montalban (5330, *Banks*): MINDANAO, Agusan (16537, *Weber*).

Genus **CEROBATES** Schönherr

sexsulcatus MOTSCH., † Et. Ent. (1858), 7, 96; SENNA, Notes Leyden Mus. (1895), 17, 220.

LUZON, Laguna, Los Baños (*coll. Baker*).

tristriatus LUND, † Skrivt. af Nat. Hist. Selsk. (1790), 5, 66; SCHÖNH., Gen. Curc. (1833), 1, 332; SENNA, Bull. Soc. Ital. (1895), 7, 52.

LUZON, Laguna, Magdalena (1760, *Schultze*): MINDANAO, Agusan (16535, *Weber*), Cabadbaran (16963, *Weber*).

Genus **PROPTHALMUS** Lacordaire

tricolor POW., † Bull. Soc. Ent. France (1878), 38.

LUZON, Benguet, Irisan (1189, *McGregor*): SIBUYAN (1947, *McGregor*).

Genus **BARYRRHYNCHUS** Lacordaire

rudis SENNA,† Ann. Mus. Stor. Nat. Genova (1892), 12, 230.
PALAWAN, Bacuit (12321, *Weber*).

Genus **AMPHICORDUS** Heller

inproportionatus HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 152, fig. 7.
MINDANAO, Zamboanga, Port Banga (8852, *Hutchinson*).

Genus **ORYCHODES** Pascoe

splendens KIRSCH,† Mitt. Zool. Mus. Dresden (1875), 1, 49.
NEGROS, Occidental Negros, Mount Canlaon (8002, *Banks*): PALAWAN,
Taytay (17273, *Schultze*).
striolatus KIRSCH, Mitt. Zool. Mus. Dresden (1875), 1, 51.

Genus **HENARRHODES** Heller

macgregori HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 153, fig. 8.
LUZON, Benguet, Irian (1185, *McGregor*).

Genus **ECTOCEMUS** Pascoe

badeni KIRSCH, Mitt. Zool. Mus. Dresden (1875), 1, 48.

Genus **HORMOCERUS** Schönherr

scrobicollis BOHEM.,† Schönh. Gen. Curc. (1845), 8, 373.
MINDANAO, Davao (16498, *Weber*).

Genus **APTERORRHINUS** Senna

compressitarsis SENNA,† Bull. Soc. Ent. Ital. (1892), 24, 61.
LUZON, Laguna, Magdalena (1766, *Schultze*).

Genus **HETEROPLITES** Lacordaire

erythroderes BOHEM.,† Schönh. Gen. Curc. (1870), 5, 564; WESTW., Cab.
Orient. Ent. (1848), 32, Pl. 15, fig. 2; LACORD., Col. (1866), 7,
415.
LUZON, Bataan, Lamao (9790, *Stevens*); Benguet, Irian (1186, *McGregor*);
MINDANAO, Agusan (16540, *Weber*): PALAWAN, Taytay
(17272, *Schultze*).

Genus **DIURUS** Pascoe

philippinus SENNA, Bull. Soc. Ent. Ital. (1911), 41, 45.

CURCULIONIDÆ

BRACHYDERINÆ

Genus **BLOSYPUS** Schönherr

philippensis JEKEL,*† Col. Jekeliana (1875), 2, 153.
LUZON, Manila (2230, *Banks*; 3308, 3359, *Schultze*); Benguet, Irian
(7230, *McGregor*); Cagayan, Pamplona (15080, *Jones*).

Genus **CATACHAENUS** Schönherr

circulus EYD. et SOUL.,† Rev. Zool. (1839), 266; DESM., Voy. La Bonite (1841), 1, 315, Pl. 2, figs. 27-28.

cinctellus FAHR., Schönh. Gen. Curc. (1840), 6, 1, 306.

LUZON, Manila (13552, *Schultze*); Bataan, Lamao (9293, *Stevens*); Cagayan, Ilagan (9837, *Stevens*).

scintillans PASC., Journ. Linn. Soc. (1874), 12, 22.

Genus **ISOPTERUS** Faust

irroratus FAUST, Stett. Ent. Zeitg. (1895), 6.

scanthomerus HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 388, Pl. 1, fig. 11.
LUZON, Benguet, Mount Pulog (10259, *Curran*).

signatus FAUST,† Stett. Ent. Zeitg. (1895), 5.

LUZON, Bataan, Lamao (7905, *Cuzner*; 9292, *Stevens*); Pampanga, San Juan (3007, *Williamson*).

Genus **EUGNATHUS** Schönherr

constrictus FAUST, in litt.

Genus **HYPOMECEs** Schönherr

suturalis CHEVR., Rev. Zool. (1841), 227.

LUZON, Manila.

PACHYRRHYNCHINÆ

Genus **PACHYRRHYNCHUS** Germar

anellifer HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 324.

annulatus BEHR., Stett. Ent. Zeitg. (1887), 256.

LUZON, Benguet, Irisan (1255, *McGregor*).

annulatus CHEVR.,† Le Natur. (1881), 3, 348; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 311.

LUZON, Benguet, Baguio (9907, *Curran*), Mount Pulog (10253, *Curran*; 11451, *McGregor*).

argus PASC.,† Journ. Linn. Soc. London (1871), 11, 154, Pl. 6, fig. 6; BEHR., Stett. Ent. Zeitg. (1887), 250; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 311.

LUZON, Benguet, Mount Pulog (11443, *McGregor*).

chevrolati EYD. et SOUL.,† Rev. Zool. (1839), 266; DESM., Voy. La Bonite (1841), 1, 313, Pl. 3, figs. 25-26; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 309.

chevrolati var. *chlorolineatus* WATERH.,† Proc. Ent. Soc. London (1841), 20; Trans. Ent. Soc. London (1843), 3, 323.

chevrolati var. *concinus* WATERH., Proc. Ent. Soc. London (1841), 45.

chevrolati var. *mandarinus* CHEVR., Rev. Zool. (1841), 226.

chevrolati var. *jagori* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 321.

CALAYAN, Babuyan (704, *McGregor*): DALUPIRI, Babuyan (11561,

- McGregor*): POLILLO (12497, *McGregor*): MINDANAO, Zamboanga (13633, *Zschokke*).
- chlorites* CHEVR.,† *Le Natur.* (1881), 1, 360; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 308, Pl. 1, fig. 23.
rutilans BEHR., *Stett. Ent. Zeitg.* (1887), 247.
 BATAN, Batanes (7756, *McGregor*): DALUPIRI, Babuyan (11564, *D. C. Worcester*): MINDORO, Mount Halcon (6361, *Merrill*).
- circulatus* HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 322, Pl. 2, fig. 12.
 CATANDUANES.
- coerulans* KRAATZ, *Deutsche Ent. Zeitschr.* (1888), 29; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 308.
- congestus* PASC.,† *Journ. Linn. Soc. London* (1871), 11, 155; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 307.
luteoguttatus CHEVR., *Le Natur.* (1881), 1, 360.
 LUZON, Benguet (1256, *McGregor*), Trinidad (8226, *Banks*), Sablan trail (10326, *Schultze*).
- croesus* R. OBERTH., *Ann. Mus. Civ. Genova* (1879), 14, 570; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 307, Pl. 1, fig. 17.
- cumingi* WATERH., *Proc. Ent. Soc. London* (1841), 19; *Trans. Ent. Soc. London* (1843), 3, 312; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 309.
- decussatus* WATERH., *Proc. Ent. Soc. London* (1841), 19; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 309, Pl. 1, fig. 14.
- dohrni* BEHR., *Stett. Ent. Zeitg.* (1887), 236; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 306.
- elegans* WATERH., *Proc. Ent. Soc. London* (1841), 45; *Trans. Ent. Soc. London* (1843), 3, 313; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 311.
- eques* HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 312, Pl. 1, fig. 21.
 LUZON, Abulog River (11594, *McGregor*).
- erichsoni* WATERH.,† *Proc. Ent. Soc. London* (1841), 19; *Trans. Ent. Soc. London* (1843), 3, 315; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 307, Pl. 1, figs. 19, 20.
 ♀ *eschsoltzi* WATERH., *Proc. Ent. Soc. London* (1841), 19.
- erichsoni* var. *chrysocompsus* HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 307.
 LUZON, Laguna, Santa Maria (12723, *Curran*).
- forsteni* VOLLH., *Tijdschr. v. Ent.* (1864), 168; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 305.
- gemmans* CHEVR., *Rev. Zool.* (1841), 225; ERICHS., *Wieg. Arch.* (1844), 2, 285; HELLER, *Phil. Journ. Sci., Sec. D* (1912), 7, 310.
- gemmans* var. *ardens* CHEVR., *Rev. Zool.* (1841), 225.
fahraei BOHEM., *Schönh. Gen. Curc.* (1844), 8, 388.
globulipennis CHEVR., *Rev. Zool.* (1841), 225.
pretiosus CHEVR., *Rev. Zool.* (1841), 225.
scintillans CHEVR., *Rev. Zool.* (1841), 225.

- gemmatus* WATERH., Proc. Ent. Soc. London (1841), 18; Trans. Ent. Soc. London (1843), 3, 311; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 308.
- ignipes* CHEVR., Le Natur. (1881), 1, 359.
- gemmatus* var. *atratus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 308.
- gloriosus* FAUST, Stett. Ent. Zeitg. (1895), 7; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 305, Pl. 1, fig. 15.
- immarginatus* KRAATZ, Deutsche Ent. Zeitschr. (1888), 28; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 308.
- inclytus* PASC., Journ. Linn. Soc. London (1871), 11, 155; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 306.
- infernalis* FAIRM., Bull. Soc. Ent. France (1897), 70; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 304.
- jugifer* WATERH., Proc. Ent. Soc. London (1841), 20; Trans. Ent. Soc. London (1843), 3, 319; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 310.
- rhodopterus* CHEVR., Rev. Zool. (1841), 224.
- lacunosus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 316.
- latifasciatus* WATERH., Proc. Ent. Soc. London (1841), 45; Trans. Ent. Soc. London (1843), 3, 317; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 311.
- lorquinii* CHEVR., Le Natur. (1881), 3, 360; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 308, Pl. 1, fig. 24.
- flavopunctatus* KRAATZ, Deutsche Ent. Zeitschr. (1888), 30.
- flavomaculatus* KRAATZ, Deutsche Ent. Zeitschr. (1888), 32.
- modestior* BEHR.,† Stett. Ent. Zeitg. (1887), 240; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 306.
- modestior* var. *apicalis* KRAATZ, Deutsche Ent. Zeitschr. (1888), 26.
- LUZON, Benguet, Pauai (11194, 11523, *McGregor*), Mount Pulog (11445, *McGregor*).
- möllendorffi* HELLER, Abh. Mus. Dresden (1899), 7, 8, 5; Phil. Journ. Sci., Sec. D (1912), 7, 305, Pl. 1, fig. 13.
- monilifer* GERM.,† Ins. Spec. Nov. (1824), 336; BOHEM., Schönh. Gen. Curc. (1844), 8, 386.
- confinis* CHEVR., Rev. Zool. (1841), 226.
- monilifer* var. *stellulifer* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 322.
- CALAYAN, Babuyan (706, *McGregor*): LUZON, Bataan, Lamao (9291, *Stevens*): MINDORO, Mangarin (13441, *Weber*).
- morlo* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 318.
- LUZON.
- morotaiensis* VOLLH., Tijdschr. v. Ent. (1864), 169; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 305.
- waterhousei* FAUST, Stett. Ent. Zeitg. (1895), 95.
- multipunctatus* WATERH., Proc. Ent. Soc. London (1843), 322; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 311.
- auroguttatus* CHEVR., Le Natur. (1881), 3, 348.
- BOHOL (6731, *McGregor*).

- nobilis* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 313, Pl. 2, fig. 9.
- ochroplagiatus* HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 311, Pl. 2, fig. 11.
- LUZON, Benguet, Mount Pulog (10252, *Curran*; 11442, *McGregor*).
- orbifer* WATERH.,† Proc. Ent. Soc. London (1841), 20; Trans. Ent. Soc. London (1843), 3, 323; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 310.
- alboguttatus* CHEVR., Rev. Zool. (1841), 226; ERICHS., Wiegmann Arch. (1842), 2, 242.
- circulifer* CHEVR., Rev. Zool. (1841), 226.
- fibriatus* CHEVR., Rev. Zool. (1841), 224.
- inornatus* WATERH., Ann. & Mag. Nat. Hist. (1841), 8, 219.
- FUGA, Babuyan (610, *McGregor*): LUZON, Benguet, Irian (983, *McGregor*), Mount Pulog (11441, 21022, *McGregor*); Cagayan, Pamplona (15083, *Jones*), Sanchez Mira (15691, *Jones*).
- perpulcher* WATERH., Proc. Ent. Soc. London (1841), 19; Trans. Ent. Soc. London (1843), 3, 312; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 307, Pl. 1, fig. 18.
- phaleratus* WATERH., Proc. Ent. Soc. London (1841), 19; Trans. Ent. Soc. London (1843), 3, 320; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 309.
- pinorum* PASC.,† Journ. Linn. Soc. London (1871), 11, 156; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 306.
- subcostatus* CHEVR., Le Natur. (1881), 3, 439.
- pinorum* var. *transversalis* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 306.
- pinorum* var. *dimidiatus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 306.
- LUZON, Benguet, Irian (1254, *McGregor*), Bued River (9876, *Curran*), Baguio (14487, *Sanchez*).
- psittacinus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 317, Pl. 1, fig. 16.
- LUZON, Bataan, Lamao (7008, *Cuzner*).
- pulchellus* BEHR.,† Stett. Ent. Zeitg. (1887), 238; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 306.
- LUZON, Benguet, Irian (1253, *McGregor*), Mount Pulog (11444, *McGregor*); Nueva Vizcaya, Imugan (9896, *Curran*).
- purpureus* KRAATZ, Deutsche Ent. Zeitschr. (1888), 31; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 308.
- reticulatus* WATERH.,† Proc. Ent. Soc. London (1841), 20; Trans. Ent. Soc. London (1843), 3, 322; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 310.
- LUZON, Tayabas, Baler (11629, *D. C. Worcester*).
- roseomaculatus* WATERH., Proc. Ent. Soc. London (1841), 19; Trans. Ent. Soc. London (1843), 3, 318; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 308.
- rugicollis* WATERH.,† Proc. Ent. Soc. London (1841), 20; Trans. Ent. Soc. London (1843), 3, 315.
- rugicollis* var. *crucifer* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 310.
- LUZON, Bataan, Lamao (7845, 9135, *Schultze*; 11531, *Curran*).

- sacritis* BEHR., Stett. Ent. Zeitg. (1887), 246; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 308, Pl. 1, fig. 22.
- sanchezi* HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 319, Pl. 2, fig. 10.
LUZON, Benguet, Baguio (13304, *Sanchez*).
- schönherri* WATERH., Proc. Ent. Soc. London (1841), 19; Trans. Ent. Soc. London (1843), 3, 315; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 307.
- semperi* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 314.
- smaragdinus* BEHR., Stett. Ent. Zeitg. (1887), 253; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 307.
- smaragdinus* var. *purpurascens* KRAATZ, Deutsche Ent. Zeitschr. (1888), 32.
- smaragdinus* var. *carnosus* KRAATZ, Deutsche Ent. Zeitschr. (1888), 32.
- speciosus* WATERH., Proc. Ent. Soc. London (1841), 19; Trans. Ent. Soc. London (1843), 3, 314; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 311.
- stellio* HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 320.
LUZON, Bataan, Lamao (9832, *Stevens*).
- striatus* WATERH., Proc. Ent. Soc. London (1841), 19; Trans. Ent. Soc. London (1843), 3, 317; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 308.
- tristis* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 315.
LUZON.
- venustus* WATERH., Proc. Ent. Soc. London (1841), 18; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 307.
rufopunctatus WATERH., Proc. Ent. Soc. London (1841), 45.
LUZON, Laguna, Los Baños (12562, *Ledyard*).
- viridans* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 318.
CALAYAN, Babuyan (McGregor).
- waltoni* BOHEM., Schönh. Gen. Curc. (1844), 8, 2, 392; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 311.

Genus EUPACHYRRHYNCHUS Heller

- superbus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 325, Pl. 2, fig. 3.

Genus APOCYRTUS Erichson

- inflatus* ERICHS.,† Nov. Act. Leop. Car. (1834), 16, Suppl., 254, Pl. 38, fig. 8; BOHEM., Schönh. Gen. Curc. (1839), 5, 824; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 301, Pl. 1, figs. 1, 1a.
LUZON, Rizal, Montalban Gorge (7658, 9865, *Schultze*).

Genus PSEUDAPOCYRTUS Heller

- exsectus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 328, Pl. 1, fig. 25.
- formicarius* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 327, Pl. 2, fig. 1.
LUZON.

imitator HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 329, Pl. 1, figs. 2, 2a, Pl. 2, fig. 2.

LUZON, Benguet, Irian (968, 7239, *McGregor*).

productus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 330.

schadenbergi HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 327, Pl. 2, fig. 3.
LUZON.

Genus MACROCYRTUS Heller

castaneus PASC.,† Cist. Ent. (1881), 2, 591; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 331.

LUZON, Benguet, Mount Pulog (10260, *Curran*; 11447, *McGregor*).

erosus PASC.,† Journ. Linn. Soc. London (1871), 11, 156.

impressipennis CHEVR., Le Natur. (1881), 3, 348.

sculptus DOHRN., in litt.

LUZON, Benguet, Irian (1530, *McGregor*).

negrito HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 333.

LUZON, Benguet, Baguio (9909, *Curran*).

nigrans PASC.,† Cist. Ent. (1881), 2, 593; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 331, Pl. 1, figs. 3, 3a.

contractus CHEVR., Le Natur. (1881), 3, 363.

nigrans var. *castanopterus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 331.

LUZON, Benguet, Trinidad (8193, *Banks*), Bued River (9878, *Curran*), Baguio (10478, *Topping*), Mount Pulog (11448, *McGregor*).

subcostatus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 332, Pl. 2, fig. 5.

LUZON, Benguet, Mount Pulog (11446, *McGregor*).

Genus NOTHAPOCYRTUS Heller

cylindricollis HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 336, Pl. 2, fig. 6.
LUZON.

erythromerus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 336.

LUZON.

translucidus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 335.

LUZON.

Genus METAPOCYRTUS Heller

Subgenus Artapocyrtus Heller

bifasciatus WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 307; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 338.

bifasciatus var. *aurora* DOHRN, in litt.

derasocobaltinus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 339.

LEYTE.

geniculatus WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 307; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 339.

humeralis HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 340.

LEYTE.

pardalis HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 341, Pl. 1, figs. 5, 5a.
astriger DOHRN, in litt.

quadriplagiatus ROEL., Bull. Soc. Ent. Belg. (1876), 19, 5; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 338, Pl. 1, figs. 4, 4a.

Subgenus *Sphenomorpoidea* Heller

metallicus WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 305.

metallicus var. *laevicollis* WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 305.

metallicus var. *sphenomorphoides* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 343.

metallicus var. *suavis* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 342.

mimicus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 344.

quaduordecimpunctatus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 343.

Subgenus *Sclerocyrtus* Heller

asper HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 345.

Subgenus *Orthocyrtus* Heller

bakeri HELLER,† Phil. Journ. Sci., Sec. D (1915), 10, 221, Pl. 1, figs. 3-4.

LUZON, Laguna, Mount Banahao (*coll. Baker*), Paete (*McGregor*).

coeruleonotatus WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 303; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 348.

hopei WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 303; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 348.

lenis CHEVR., Le Natur. (1881), 1, 382; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 348.

pachyrrhynchoides HELLER,† Phil. Journ. Sci., Sec. D (1915), 10, 220, Pl. 1, figs. 1-2.

LUZON, Laguna, Mount Banahao (*coll. Baker*), Paete (*McGregor*).

politus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 349.

LUZON.

quadrulifer WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 304; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 348.

schönherri WATERH., Ann. & Mag. Nat. Hist. (1843), 11, 302; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 348.

subquadrulifer WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 304; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 348.

triangularis HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 348.

DALUPIRI, Babuyanes (11560, *McGregor*).

tumridorsum CHEVR., Le Natur. (1881), 1, 382; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 348, Pl. 1, figs. 26, 26a.

virens HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 350.

smaragdulus JEKEL, in litt.

regalis BEHRENS, in litt.

midas DOHRN, in litt.

LUZON.

Subgenus *Metapocyrtus* Heller

- albodecoratus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 365, Pl. 1, fig. 9; Pl. 2, fig. 7.
- bamballo* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 362, Pl. 1, figs. 27, 27a.
- bituberosus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 372, Pl. 1, figs. 8, 8a. MINDANAO, Davao.
- brevicollis* CHEVR., Le Natur. (1881), 3, 363; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 353.
- cylas* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 359.
- derasus* BOHEM., Schönh. Gen. Curc. (1844), 8, 2, 396; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 353.
- difficilis* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 368. LUZON, Antimonan.
- dolosus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 370.
- elegans* WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 306; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 355.
- erichsoni* CHEVR., Rev. Zool. (1841), 226; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 355, Pl. 1, figs. 6, 6a.
- gibbistrostris* WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 308.
- figuratus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 373, Pl. 2, fig. 13. CATANDUANES, Virac (3933, *Burke*).
- impius* ERICHS., Nov. Act Leop. Car. (1834), 16, Suppl., 256, Pl. 38, fig. 9; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 353.
- longipes* CHEVR., Le Natur. (1881), 3, 363.
- interruptolineatus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 357.
- macgregori* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 363. CALAYAN, Babuyan (703, *McGregor*).
- opulentus* CHEVR., Le Natur. (1881), 382; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 356.
- picipennis* WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 307; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 354, Pl. 1, fig. 10.
- picticollis* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 367.
- politissimus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 361, Pl. 2, fig. 16. LUZON, Benguet, Mount Pulog (10273, *Curran*).
- pseudomonillifer* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 358, Pl. 1, fig. 12. LUZON.
- puncticollis* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 369. SIBUYAN (7665, *McGregor*).
- repandicauda* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 356, Pl. 1, figs. 28, 28a. LUZON, Benguet, Mount Pulog (10267, *Curran*).

- rufipes* WATERH., Ann. & Mag. Nat. Hist. (1843), 11, 248; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 352.
graniferus CHEVR., Le Natur. (1881), 3, 439.
femoralis CHEVR., Le Natur. (1881), 3, 363.
- rugicollis* CHEVR., Le Natur. (1881), 3, 439; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 355, Pl. 1, figs. 7, 7a.
- scabiosus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 360.
 LUZON, Benguet, Pauai (11365, *McGregor*).
- striatus* HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 364.
 BATAN, Batanes (7758, *McGregor*): LUZON, Laguna, Mount Banahao (7146, *Banks*): ROMBLON (1990, *McGregor*).
- subfasciatus* BOHEM., Schönh. Gen. Curc. (1844), 8, 2, 394; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 356.
- tenuipes* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 366.
 LUZON.
- virgatus* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 369.
 NEGROS, Occidental Negros, Mount Canlaon (6251, *Banks*).

Subgenus *Trachycyrtus* Heller

- acutipennis* WATERH., Ann. & Mag. Nat. Hist. (1843), 11, 252.
- adspersus* WATERH., Ann. & Mag. Nat. Hist. (1843), 11, 252; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 375.
- bispinosus* WATERH., Ann. & Mag. Nat. Hist. (1843), 11, 253; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 374.
- chevrolati* WATERH., Ann. & Mag. Nat. Hist. (1843), 11, 251; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 374.
- concinus* WATERH., Ann. & Mag. Nat. Hist. (1843), 11, 253; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 374.
- cuneiformis* WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 310.
- germari* WATERH., Ann. & Mag. Nat. Hist. (1843), 11, 249; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 374.
- gibbicollis* FAUST, Stett. Ent. Zeitg. (1895), 8; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 375.
- glaberrinus* CHEVR., Le Natur. (1881), 3, 382.
- immitus* BOHEM., Schönh. Gen. Curc. (1844), 8, 395; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 374.
viridulus CHEVR., Le Natur. (1881), 3, 439.
dives HELLER, in litt.
- miser* FAUST, Stett. Ent. Zeitg. (1895), 8; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 374, 375.
 LUZON, Benguet, Trinidad (8234, *Banks*).
- nanus* BOHEM., Schönh. Gen. Curc. (1844), 8, 2, 397; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 374.

profanus ERICHS.,† Nov. Act. Leop. Car. (1839), 16, Suppl., 255; GUÉR., Icon. Reg. Anim., Ins. (1846), Pl. 37, fig. 6; ROSENSCH., Schönh. Gen. Curc. (1839), 5, 825; (1844), 8, 395; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 374, 375.

LUZON, Laguna, Mount Banahao (7183, *Banks*); Bataan, Lamao (7012, *Cuzner*; 14342, *Stevens*): BOHOL (6733, *McGregor*).

pulverulentus WATERH., Ann. & Mag. Nat. Hist. (1843), 11, 254; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 375.

quadricinctus CHEVR., Le Natur. (1881), 3, 382.

ruficollis WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 314; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 375.

sparsus FAUST,† Stett. Ent. Zeitg. (1895), 9; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 374.

LUZON, Benguet, Irisan (976, 1529, 7228, *McGregor*), Trinidad (8194, 8242, *Banks*).

spinipes CHEVR.,† Le Natur. (1881), 3, 363; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 375.

LUZON, Rizal, Montalban Gorge (5340, *Banks*).

Subgenus *Homalocyrtus* Heller

conicus BOHEM., Schönh. Gen. Curc. (1844), 8, 2, 393; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 376.

harpago HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 377.
LUZON.

intermittens HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 376, Pl. 1, fig. 29, 29a.

♀ *marginenodosus* CHEVR., Le Natur. (1881), 3, 439; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 376.

subcuneiformis WATERH.,† Ann. & Mag. Nat. Hist. (1842), 9, 310.

♀ *rufescens* WATERH., Ann. & Mag. Nat. Hist. (1842), 9, 310; HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 375.

TICAO (9613, *McGregor*): ROMBLON (1988, *McGregor*): SIBUYAN (7666, *McGregor*): BOHOL (6732, *McGregor*).

tumidosus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 378.
LUZON.

CELEUTHETINÆ

Genus *IDORHYNCHUS* Faust

lugubris BOHEM.,† Schönh. Gen. Curc. (1843), 7, 1, 397; LACORD., Gen. Col., Atl. (1854), 7, Pl. 64, fig. 1a-b.

LUZON, Cagayan, Pamplona (15084, *Jones*): BATAN, Batanes (7757, *McGregor*; 11686, *D. C. Worcester*): CAMIGUIN, Babuyan (7792, *McGregor*): FUGA, Babuyan (608, *McGregor*).

Genus *HETEROGLYMMA* Faust

alata HELLER,† Abh. Mus. Dresden (1900), 9, 20.

LUZON, Benguet, Irisan (1532, 7267, *McGregor*).

Genus **POLYCATUS** Heller

aurofasciatus HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 380, Pl. 2, fig. 15.
BASILAN.

eupholoides HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 223, Pl. 1, figs. 7-8.
MINDANAO, Bukidnon, Talkulan (*coll. Baker*).

Genus **CALIDIOPSIS** Heller

speciosa HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 381, Pl. 2, fig. 14.
MINDANAO, Zamboanga (8695, *Hutchinson*).

Genus **NEOPYRGOPS** Heller

albovaria HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 383.
MINDORO, Sibalon (11393, *D. C. Worcester*).

banksi HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 382, Pl. 2, fig. 4.
NEGROS, Occidental Negros, Maa (329, *Banks*).

Genus **PYRGOPS** Schönherr

exigua HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 387.
CAMIGUIN, Babuyanes (*McGregor*).

inops BOHEM., Schönh. Gen. Curc. (1843), 7, 241.
cyanipes CHEVR., Rev. Zool. (1841), 227; ERICHS., Wieg. Arch.
(1842), 2, 243.

rufipennis HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 386.
LUZON, Cagayan, Ilagan (9134, *Stevens*); Benguet, Baguio (9906,
Curran).

stellata HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 384.

stellata var. **aurocincta** HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 385.
LUZON, Bataan, Lamao (9136, *Schultze*; 9296, *Stevens*); Rizal, Montalban Gorge (9572, *Topping*).

Genus **EUPYRGOPS** Berg

banahaonis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 222, Pl. 1, figs. 5, 6.
LUZON, Laguna, Mount Banahao, (*coll. Baker*).

granulosus FAUST, Stett. Ent. Zeitg. (1898), 259.

semperi FAUST, Stett. Ent. Zeitg. (1898), 258.

subannulatus FAUST, Stett. Ent. Zeitg. (1898), 256.

OTIORHYNCHINÆ

Genus **COPTORHYNCHUS** Faust

elongatus BLANCH., Voy. Pôle Sud (1853), 4, 226, Pl. 15, fig. 13.
NEGROS, Occidental Negros, Bago (1118, *Banks*).

granosus BOHEM.,† Schönh. Gen. Curc. (1843), 7, 249.
FUGA, Babuyanes (609, *McGregor*): CAMIGUIN, Babuyanes (7805, *McGregor*): BATAN, Batanes (11855, *D. C. Worcester*): LUZON, Bataan, Lamao (9294, *Stevens*).

irroratus EYD. et SOUL., Rev. Zool. (1839), 266; DESM., Voy. La Bonite (1841), 1, 317, Pl. 2, fig. 31.

ostentatus GYLE., Schönh. Gen. Curc. (1834), 2, 583; BLANCH., Voy. Pôle Sud (1853), 4, 234, Pl. 15, fig. 7.

LUZON, Laguna, Los Baños (17318, *Baker*).

setipennis CHEVR., Rev. Zool. (1841), 227.

waltoni BOHEM., Schönh. Gen. Curc. (1843), 7, 248.

LUZON, Laguna, Mount Maquiling (17319, *Baker*).

Genus EPISOMUS Schönherr

lentus ERICHS.,† Nov. Act. Leop. Car. (1834), 16, Suppl. 1, 263; BOHEM., Schönh. Gen. Curc. (1843), 7, 1, 94.

lateralis EYD. et SOUL., Rev. Zool. (1839), 266; BOHEM., Schönh. Gen. Curc. (1843), 7, 93; DESM., Voy. La Bonite (1841), 1, 316, Pl. 2, figs. 29, 30.

LUZON, Pampanga, Mount Arayat (3003, *Williamson*); Bataan, Lamao (7844, 9134, *Schultze*).

Genus MYLLOCERUS Schönherr

interruptus FAUST, Stett. Ent. Zeitg. (1895), 3.

Genus CYPHICERUS Schönherr

appendicinus FAUST, Stett. Ent. Zeitg. (1890), 68.

EREMNINÆ

Genus PHYTOSCAPHUS Schönherr

articollis BOHEM., Schönh. Gen. Curc. (1843), 7, 1, 415.

GONIPTERINÆ

Genus STYANAX Pascoe

luzonicus HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 23.

LUZON, Laguna, Mount Maquiling (*Baker*).

ATERPINÆ

Genus AESIOTES Pascoe

notabilis PASC.,† Journ. Ent. (1866), 2, 422.

notabilis var. *sanchezi* HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 390.

LUZON, Benguet (6524, *Sanchez*).

CLEONINÆ

Genus CLEONUS Schönherr

bimaculatus CHEVR., Mém. Soc. Roy. Liège (1873), 5, 72.

bisignatus ROEL., Ann. Soc. Ent. Belg. (1873), 16, 181.

Genus LIXUS Fabricius

confusus FAUST, Stett. Ent. Zeitg. (1896), 57, 144.

LUZON, Laguna, Calauang (14196, *McGregor*).

luzonicus FAUST, Stett. Ent. Zeitg. (1895), 10.
LUZON, Laguna (17324, *Baker*).

ritsemae PASC., in litt.
LUZON, Laguna, Los Baños (17325, *Baker*).

vetula FABR., Ent. Syst. (1794), 1, 2, 460.

Genus **PAEPALOSOMUS** Schönherr

dealbatus BOISD.,† Voy. de l'Astrolabe (1835), 2, 425; LACORD., Gen. Col. (1863), 6, 445.

pistrinarius SCHÖNH., Mant. Sec. Curcul. (1847), 70; LACORD., Gen. Col., Atl. (1854), Pl. 70, fig. 4a-b.

LUZON, Laguna, Los Baños (17329, *Baker*).

HYPERINÆ

Genus **CEPURELLUS** Heller

cervinus HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 136.
MINDANAO, Zamboanga, Port Banga (8692, *Hutchinson*).

HYLOBIINÆ

Genus **NIPHADES** Pascoe

pardalotus PASC.,† Journ. Linn. Soc. (1871), 174.
LUZON, Benguet, Irisan (7229, *McGregor*).

Genus **PAGIOPHLOEUS** Faust

schultzei HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 390.
LUZON, Rizal, Montalban Gorge (9114, *Schultze*).

Genus **DYSCERUS** Faust

unifasciatus HELLER,† Phil. Journ. Sci., Sec. D (1912), 7, 392.
LUZON, Rizal, Montalban Gorge (5464, *Banks*; 11061, *Schultze*).

Genus **ACLEES** Schönherr

gyllenhallii PASC.,† Journ. Linn. Soc. (1871), 172.
LUZON, Laguna, Los Baños (17316, *Baker*).

ERIRHININÆ

Genus **NEMOPTERUS** Faust

picus FAUST, Stett. Ent. Zeitg. (1888), 290.

AMBATINÆ

Genus **SYNOPHTHALMUS** Lacordaire

crucifer GYLN., Schönh. Gen. Curc. (1834), 2, 282.

APIONINÆ

Genus **CYLAS** Latreille

turcipennis BOHEM.,*† Schönh. Gen. Curc. (1833), 1, 369.
LUZON, Manila (2464, *Schultze*).

Genus **APION** Herbst

schultzei WAGN.,† Phil. Journ. Sci., Sec. D (1912), 7, 101.

LUZON, Bataan, Lamao (9841, *Stevens*); Pampanga, Mount Arayat (2986, *Williamson*).

strongylodontis WAGN.,*† Ent. Mitt. (1913), 2, 316.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

versutum FAUST,*† Ann. Soc. Ent. France (1892), 514.

LUZON, Manila (5275, *Banks*; 6150, *Arce*).

ATTELABINÆ

Genus **APODERUS** Olivier

badeni FAUST,† Stett. Ent. Zeitg. (1883), 44, 461.

macrostylus MOTSCH., Bull. Mosc. (1861), 1, 629.

LUZON, Cagayan (9778, *Stevens*; 15669, *Jones*).

insularis FAUST, Stett. Ent. Zeitg. (1883), 44, 463.

ledyardi HELLER,† Phil. Journ. Sci., Sec. D (1915), 10, 27.

LUZON, Laguna, Los Baños (*coll. Baker*).

sejunctus FAUST, Stett. Ent. Zeitg. (1883), 44, 464.

tenuissimus PASC.,† Cist. Ent. (1881), 2, 596.

LUZON, Cagayan, Lalloc (14336, 14339, *Banks*; *Jones*).

Genus **EUOPS** Schönherr

jekeli ROEL., Bull. Soc. Ent. Belg. (1876), 19, 8.

willemosi BAER, Ann. Soc. Ent. France (1886), 145.

RHYNCHITINÆ

Genus **RHYNCHITES** Herbst

coelestinus GYLH., Schönh. Gen. Curc. (1833), 1, 211.

philippensis CHEVR., Rev. Zool. (1841), 224.

laevigatus PASC.,† Ann. & Mag. Nat. Hist. (1875), IV, 15, 392.

MINDANAO, Agusan River (13680, *Schultze*).

manillensis WESTW., Proc. Zool. Soc. London (1837), 128.

MINDANAO, Davao (16485, *Weber*).

Genus **AULETOBIUS** Desbrochers

ascendens HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 224.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

BALANININÆ

Genus **BALANINUS** Germar

axillaris FAUST,† Stett. Ent. Zeitg. (1895), 56, 15.

LUZON, Rizal, Montalban Gorge (5480, *Banks*; 8842, *Schultze*); Cagayan, Lalloc (15619, *Jones*): GUIMARAS (12988, *Banks*).

bicolor FAUST,† Stett. Ent. Zeitg. (1895), 56, 14.

LUZON, Cagayan, Ilagan (9780, *Stevens*).

pertinax FAUST, Stett. Ent. Zeitg. (1895), 56, 13.

radiatus HELLER,† in litt.

LUZON, Cagayan, Ilagan (9779, *Stevens*).

Genus *ERGANIA* Pascoe

decorata HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 137.

decorata var. *zamboangana* HELLER, Phil. Journ. Sci., Sec. D (1913), 8, 137.

LUZON, Laguna, Los Baños (13400, *Ledyard*): MINDANAO, Zamboanga (13614, *Zschokke*).

ANTHONOMINÆ

Genus *ONTOCTETERUS* Faust

scutellaris FAUST, Stett. Ent. Zeitg. (1895), 56, 11.

Genus *PARIMERA* Faust

negrito HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 225.

negrito var. *variabilis* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 226.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

obscura FAUST, Stett. Ent. Zeitg. (1896), 57, 148.

trivittata HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 225.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus *MINYRUS* Schönherr

exaratus BOHEM., Schönh. Gen. Curc. (1834), 3, 327.

PRIONOMERINÆ

Genus *OMPHASUS* Pascoe

mansuetus FAUST,† Deutsche Ent. Zeitschr. (1898), 304.

LUZON, Laguna, Los Baños (*Baker*).

Genus *MEGARRHINUS* Schönherr

suratus HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 227.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

LAEMOSACINÆ

Genus *AMORPHOIDEA* Motschulsky

dorsalis FAUST, Stett. Ent. Zeitg. (1895), 12.

lata MOTSCH.,*† Etud. Ent. (1858), 7, 79.

LUZON, Manila (915, 2238, 14737, *Banks*).

pruinosa FAUST, in litt.

NANOPHYINÆ

Genus *NANOPHYES* Schönherr

discoidalis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 26, fig. 6.

LUZON, Laguna, Los Baños (*Baker*).

- neuter** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 25, fig. 5.
 LUZON, Laguna, Mount Maquiling (*Baker*).
proles HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 25, fig. 4.
 LUZON, Laguna, Los Baños (*Baker*).
varicolor HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 27, fig. 7.
 LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **CIONUS** Clairville

Subgenus **Sterconychus** Suffrian

- reitteri** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 28.
 MINDORO, Mangarin (13434, *Weber*).

ALCIDINÆ

Genus **ALCIDES** Schönherr

- albocinctus** BLANCH.,† Voy. Pôle Sud (1853), 4, 246, Pl. 14, fig. 20; PASC., Ann. Mus. Civ. Genova (1885), 242.
 LUZON, Laguna, Mount Maquiling (17320, *Baker*).
burmeisteri BOHEM., Schönh. Gen. Curc. (1844), 8, 2, 448; PASC., Ann. Mus. Civ. Genova (1885), 242.
crassus PASC., Ann. & Mag. Nat. Hist. (1882), 10, 450; WATERH., Aid Ident. Ins. (1885), 3, Pl. 161, fig. 8.
 NEGROS, Occidental Negros (12178, *Foxworthy*).
decoratus ROEL., Tijdschr. v. Ent. (1893), 36, 37.
delta PASC., Journ. Linn. Soc. London (1870), 10, 460; Ann. Mus. Civ. Genova (1885), 243.
leucospilus ERICHS., Nov. Act. Acad. Leop. Car. (1834), 16, Suppl. 1, 264, Pl. 39, fig. 2.
lorquinii JEKEL, in litt.
ocellatus ROEL.,† Tijdschr. v. Ent. (1893), 36, 35.
 MINDANAO, Agusan River (17310, *Weber*).
parvulus FAUST, in litt.
pectoralis BOHEM.,† Schönh. Gen. Curc. (1834), 3, 618.
sulcatulus OLIV., Ent. (1807), 5, 83, 203, Pl. 22, fig. 304a.
olivieri BOVIE, Ann. Soc. Ent. Belg. (1908), 43.
 LUZON, Manila (7948, 8122, *Schultze*); Bataan, Lamao (7842, *Schultze*): CALAYAN, Babuyan (650, *McGregor*): NEGROS, Occidental Negros, Maao (1542, *Banks*): MINDANAO, Davao (16463, *Weber*).
rutilans ROEL., Tijdschr. v. Ent. (1893), 36, 38.
schönherrii JEKEL, in litt.
semper PASC.,† Journ. Linn. Soc. London (1870), 10, 462; ROEL., Tijdschr. v. Ent. (1893), 36, 34.
 LUZON, Benguet, Irisan (965, *McGregor*), Mount Pulog (11449, *McGregor*), Baguio (11329, *F. Worcester*).

- septemdecimnotatus* ROEL., Tijdschr. v. Ent. (1893), 36, 36.
smaragdinus ROEL., Tijdschr. v. Ent. (1893), 36, 39.
waltoni BOHEM., Schönh. Gen. Curc. (1844), 8, 1, 58.

ITHYPORINÆ

Genus *DESMIDOPHORUS* Schönherr

- cumingi* SCHÖNH.,† Gen. Curc. (1844), 8, 2, 3.
cumingi var. *pustulosus* SCHÖNH., Gen. Curc. (1844), 8, 4.
 LUZON, Bataan, Lamao (9805, *Stevens*); Tayabas, Mauban (8732, *Curran*): MINDORO, Baco River (3205, 3382, *McGregor*).
hebes FABR.,† Spec. Ins. (1781), 1, 174; OLIV., Ent. (1807), 5, 83, 194, Pl. 12, fig. 144.
 SIBUYAN (2008, *McGregor*).

Genus *MECISTOCERUS* Fauvel

- mollis* FAUST, Ann. Mus. Civ. Genova (1894), 34, 271.

Genus *ECTATORHINUS* Lacordaire

- wallacei* LACORD, Gen. Col. (1866), 7, 54.
 PALAWAN, Mount Salacot (13013, *Lamb*).

CRYPTORHYNCHINÆ

Genus *APRIES* Pascoe

- eremita* PASC.,† Journ. Linn. Soc. London (1871), 11, 196.
 LUZON, Manila (2050, *Schultze*): MINDANAO, Davao (16495, *Weber*).

Genus *CAMPTORRHINUS* Schönherr

- affinis* FAUST, Ann. Mus. Civ. Genova (1895), 281.
dorsalis BOISD.,† Voy. de l'Astrolabe (1835), 2, 434.
artensis MONTR., Ann. Soc. Ent. France (1860), 895.
 LUZON, Manila (1590, *Schultze*): CALAYAN, Babuyan (7254, *McGregor*): ROMBLON (1987, *McGregor*): NEGROS, Occidental Negros (6325, *Banks*): PALAWAN, Iwahig (10739), Taytay (17125, *Schultze*).
pilipes FABR., Syst. Eleuth. (1801), 2, 468; OLIV., Ent. (1807), 5, 188, Pl. 22, fig. 298; BOHEM., Schönh. Gen. Curc. (1837), 4, 1, 172.
quadrilineatus CHEVR., Bull. Soc. Ent. France (1884), 102.

Genus *POROPTERUS* Schönherr

- bengueticus* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 231, Pl. 1, fig. 9.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus *TRAGOPUS* Schönherr

- pygmaeus* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 232.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus CYAMOBOLUS Schönherr

- charpentieri* BOHEM., Schönh. Gen. Curc. (1837), 4, 182; HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 234.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).
palawanicus HELLER,*† Phil. Journ. Sci., Sec. D (1913), 8, 140, fig. 2.
 CEBU, Toledo (6771, *McGregor*): PALAWAN 6108, *Merrill*).
sturmi BOHEM., Schönh. Gen. Curc. (1837), 4, 181.
obliquus STURM, Cat. (1826), 128.
sturmi var. *definitus* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 233.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus ASYTESTA Pascoe

- philippinica* HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 141.
 LUZON, Laguna, Calauang (14206, *McGregor*).

Genus SCLEROLIPS Faust

- ochrodiscus* HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 142.
 CALAYAN, Babuyan (649, *McGregor*).

Genus OROCHLESIS Pascoe

- annularis* PASC., Journ. Linn. Soc. London (1871), 195; HELLER, Ent. Mitt. (1912), 1, 365.

Genus ODOSYLLIS Pascoe

- intricata* FAUST,† Stett. Ent. Zeitg. (1890), 75.
 SIBUYAN (1942, *McGregor*).
mindanaoensis HELLER, Phil. Journ. Sci., Sec. D (1912), 7, 394.
 MINDANAO, Zamboanga (8693, *Hutchinson*).

Genus ENDYMIA Pascoe

- apicalis* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 29, fig. 8.
 LUZON, Laguna, Los Baños (*Baker*).
effusa FAUST, Stett. Ent. Zeitg. (1890), 51, 190; HELLER, Phil. Journ. Sci., Sec. D (1913), 8, 145.
 SAMAR.
philippinica HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 143.
 LUZON, Bataan, Lamao (9801, *Stevens*).

ZYGOPINÆ

Genus AGAMETINA Heller

- discomaculata* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 229.
 LUZON, Laguna, Mount Maquiling (*coll. Baker*).

Genus CHIROZETES Pascoe

- arotes* HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 230.
 LUZON, Laguna, Mount Banahao (*coll. Baker*).

Genus **DAEDANIA** Pascoe

onca PASC.,† Ann. Mus. Civ. Genova (1885), 2, 280.

onca subsp. *philippinensis* HELLER, Abh. Mus. Dresden (1892), No. 2, 4.

Genus **MECOPUS** Schönherr

bakeri HELLER,† Phil. Journ. Sci., Sec. D (1915), 10, 31.

LUZON, Laguna, Los Baños (*coll. Baker*).

bispinosus WEBER,*† Obs. Ent. (1801), 94; GYLH., Schönh. Gen. Curc. (1836), 3, 556; ROSENSCH., Schönh. Gen. Curc. (1837), 4, 686; PASC., Ann. & Mag. Nat. Hist. (1871), Pl. 15, fig. 11.

CAMIGUIN, Babuyan (7811, *McGregor*): LUZON, Bataan, Lamao (8880, *Ledyard*): NEGROS, Occidental Negros, Bago (6332, *Banks*): MINDANAO, Davao (16494, *Weber*).

hopei ROSENSCH.,*† Schönh. Gen. Curc. (1837), 4, 689.

LUZON, Manila (2709, *Schultze*): MINDORO, Magaran (10767, *Schultze*).

Genus **OSPILIA** Pascoe

coturnia HELLER, in litt.

LUZON, Tayabas, Atimonan.

Genus **PEMPHERES** Pascoe

affinis FAUST,† Deutsche Ent. Zeitschr. (1898), 319.

LUZON, Laguna, Los Baños (17334, *Baker*).

habena PASC., Ann. & Mag. Nat. Hist. (1871), 215; HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 231.

LUZON, Laguna, Mount Banahao (*coll. Baker*).

Genus **METIALMA** Pascoe

naevia PASC.,† Ann. & Mag. Nat. Hist. (1871), 7, 218, Pl. 16, fig. 4.

NEGROS, Occidental Negros (920, *Banks*).

obsoleta HELLER, Phil. Journ. Sci., Sec. D (1913), 8, 145.

MINDORO, Magaran (13435, *Weber*).

Genus **NAUPHAEUS** Pascoe

linearis HELLER,*† Stett. Ent. Zeitg. (1908), 179; BANKS, Phil. Journ. Sci. (1906), 1, 159, Pl. 10, figs. 1-5.

LUZON, Laguna, Magdalena (1751, *Schultze*).

sexmaculatus HELLER, Phil. Journ. Sci., Sec. D (1913), 8, 146.

PALAWAN, Iwahig (12541, *Lamb*).

simius FAUST, Stett. Ent. Zeitg. (1892), 222.

Genus **IDOTASIA** Pascoe

paucisquamosa HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 30, figs. 9, 9a.

LUZON, Laguna, Los Baños (*Baker*).

ISORHYNCHINÆ

Genus **LOBOTRACHELUS** Schönherr

gentilis HELLER,† *Phil. Journ. Sci., Sec. D* (1915), 10, 31.
LUZON, Laguna, Los Baños (*coll. Baker*).

subfasciatus MOTSCH.,† *Et. Ent.* (1858), 7, 76.

LUZON, Bataan, Lamao (9842, *Stevens*): PALAWAN, Bacuit (12337, *Weber*).

TRYPEDINÆ

Genus **NANOPLAXES** Heller

merrillii HELLER,† *Phil. Journ. Sci., Sec. D* (1913), 8, 138, fig. 1.
LUZON, Bataan, Lamao (*Merrill*).

BARIDINÆ

Genus **ZENA** Pascoe

virgata BOHEM.,† *Schönh. Gen. Curc.* (1844), 8, 176.

LUZON, Benguet, Irisan (7250, *McGregor*); Cagayan, San Luis (15498, *Jones*): NEGROS, Occidental Negros, Bago (352, 6405, *Banks*): MIN-DANAO, Davao (16483, *Weber*), Agusan River (14022, *Schultze*).

Genus **LAODIA** Pascoe

lineata FAUST, *Stett. Ent. Zeitg.* (1895), 17.

tristis FAUST, *Stett. Ent. Zeitg.* (1895), 18.

Genus **ACYTHOPEUS** Pascoe

pascoei FAUST, *Stett. Ent. Zeitg.* (1895), 16.

Genus **ONTOBARIS** Faust

tarda FAUST, in litt.

Genus **CENTRINOPSIS** Roelofs

ebeninus FAUST, *Stett. Ent. Zeitg.* (1895), 18.

Genus **THEOGAMA** Pascoe

jordani FAUST, *Stett. Ent. Zeitg.* (1895), 19.

MADARINÆ

Genus **LYTERIUS** Schönherr

instabilis BOHEM., *Schönh. Gen. Curc.* (1844), 8, 87.

CALANDRINÆ

Genus **CYRTOTRACHELUS** Schönherr

lar ERICHS,*† *Nov. Act. Leop. Car.* (1834), 1, Suppl., 265; *GYLH., Schönh. Gen. Curc.* (1837), 4, 836.

LUZON, Bataan, Lamao (9765, *Stevens*; 17013, *Schultze*); Laguna, Los Baños (10369, *Ledyard*).

- longimanus** FABR.,† Syst. Ent., App. (1798), 822; THUNB., Act. Hom. (1797), 1, 48, 3a, β; GYLH., Schönh. Gen. Curc. (1837), 4, 835. LUZON, Benguet, Irisan (17078, *McGregor*).

Genus OTIDOGNATHUS Heller

- elegans** FAIRM.,† Ann. Soc. Ent. France (1878), 128. LUZON, Laguna, Los Baños (12551, *Ledyard*); Bulacan, Sibul (16224, *Schultze*); Cagayan, Ilagan (9777, *Stevens*): MINDANAO, Zamboanga (15839, *Merrill*).
- elegans** subsp. **serioplaga** HELLER,† Phil. Journ. Sci., Sec. D (1915), 10, 32. LUZON, Cagayan, Ilagan (9773, *Stevens*).
- fulvopictus** HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 234. LUZON, Tayabas, Malinao (*coll. Baker*).
- westermanni** BOHEM., Schönh. Gen. Cur. (1844), 8, 2, 223.

Genus PROTOCERIUS Schönherr

- rufifrons** HELLER,† Phil. Journ. Sci., Sec. D (1915), 10, 33, fig. 10. MINDANAO, Agusan River (17309, *Weber*); Davao (*coll. Schultze*).

Genus RHYNCHOPHORUS Herbst

- ferrugineus** OLIV.,*† Encyl. Méth. (1790), 5, 473; Ent. (1807), 5, 83, 79, Pl. 2, fig. 16d; BANKS, Phil. Journ. Sci. (1906), 1, 154, Pl. 8, fig. 1. *schach* FABR., Syst. Eleuth. (1801), 2, 433; GYLH., Schönh. Gen. Curc. (1837), 4, 827. *palmarum* var. HERBST, Käfer (1795), 6, Pl. 60, fig. 2. LUZON, Laguna, Magdalena (333, *Schultze*); Nueva Ecija, Santor (4835, *Schultze*): MARINDUQUE, Boac (7381, *Nepomuceno*).
- pascha** BOHEM.,*† Schönh. Gen. Curc. (1844), 8, 2, 218; BANKS, Phil. Journ. Sci. (1906), 1, 158, Pl. 8, fig. 2. LUZON, Laguna, Magdalena (331, *Banks*): MINDANAO, Davao (16636, *Weber*).

Genus OMOTEMNUS Chevrolat

- haemorrhoidalis** WIEDEM.,† Zool. Mag. (1819), 1, 175. **haemorrhoidalis** var. **pygidialis** HELLER, Phil. Journ. Sci., Sec. D (1913), 8, 148. PALAWAN, Iwahig (13212, *Lamb*).

Genus OMMATOLAMPUS Schönherr

- paratasioides** HELLER,† Notes Leyden Mus. (1896), 244. **whiteheadi** HELLER, Notes Leyden Mus. (1896), 243. LUZON, Bataan, Lamao (7009, *Cuzner*).

Genus PRODIOCTES Pascoe

- flavolineatus** CHEVR.,† Ann. Soc. Ent. France (1885), 99. LUZON, Tayabas, Baler (11625, *D. C. Worcester*); Cagayan, Sanchez Mira (14960, *Jones*); Laguna, Mount Maquiling (17322, *Baker*).

nigrocinctus CHEVR.,† Ann. Soc. Ent. France (1885), 98.

LUZON, Laguna, Mount Maquiling (17323, *Baker*): POLILLO (12494, *McGregor*).

rubrovittatus HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 234.

LUZON, Laguna, Mount Banahao (*coll. Baker*).

Genus **SPHENOCORYNUS** Schönherr

conformis PASC., Ann. & Mag. Nat. Hist. (1887), 19, 376.

irroratus CHEVR., Ann. Soc. Ent. France (1882), 566.

ocellatus PASC.,† Ann. & Mag. Nat. Hist. (1887), 19, 376.

LUZON, Benguet, Irisan (1535, *McGregor*); Laguna, Los Baños (11771, *Ledyard*; 17321, *Baker*): POLILLO (12501, *McGregor*).

Genus **OXYPYGUS** Lacordaire

exclamationis WIED.,† Zool. Mag. (1823), 2, 221; SCHÖNH., Gen. Curc. (1837), 4, 2, 871.

LUZON, Laguna, Los Baños (11772, *Ledyard*), Mount Maquiling (17341, *Baker*).

Genus **EUGITHOPUS** Chevrolat

elegans ROEL., Notes Leyden Mus. (1891), 13, 145, Pl. 8, fig. 5.

ochreatus EYD. et SOUL., Rev. Zool. (1839), 266; DESM., Voy. La Bonite (1841), 1, 318, Pl. 2, figs. 32-33.

ochreatus var. **albiventris** CHEVR., Ann. Soc. Ent. France (1882), 576.

ornatus ROEL., Tijdschr. v. Ent. (1893), 36, 30.

plagiatus ROEL.,*† Tijdschr. v. Ent. (1893), 36, 29.

LUZON, Bataan, Lamao (7897, *Cuzner*): MINDORO, Baco River (3158, *McGregor*).

Genus **POTERIOPHORUS** Schönherr

congestus PASC., Journ. Linn. Soc. London (1874), 12, 70, Pl. 4, fig. 9; CHEVR., Ann. Soc. Ent. France (1882), 576.

imperatrix WHITE, Ann. & Mag. Nat. Hist. (1848), 1, 108.

Genus **CERCIDOCERUS** Schönherr

curvaturatus HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 235, Pl. 1, fig. 10.
LUZON, Laguna, Mount Maquiling (*coll. Baker*).

flavopictus HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 147, fig. 3.

MINDANAO, Agusan River (12524, *Celestino*).

similis CHEVR., Ann. Soc. Ent. France (1882), 573.

x-rubrum DESBR.,† Ann. Soc. Ent. Belg. (1910), 132.

LUZON, Bataan, Lamao (9140, *Schultze*).

Genus **COSMOPOLITUS** Chevrolat

sordidus GERM.,*† Ins. Spec. (1824), 299; GYLH., Schönh. Gen. Curc. (1837), 4, 925.

crenatus STURM., Cat. (1826), 106.

LUZON, Manila (4714, *Banks*); Laguna, Pagsanjan (1746, *Schultze*):
MINDANAO, Davao (16473, *Weber*): PALAWAN, Iwahig (10344, *Schultze*).

Genus RHABDOCNEMIS Faust

lineatocollis HELLER,*† Phil. Journ. Sci., Sec. D (1912), 7, 395; BANKS, Phil. Journ. Sci. (1906), 1, 161, Pl. 11, figs. 1-6.

LUZON, Laguna, Magdalena (772, 1773, *Schultze*): MINDORO, Mount Halcon (6417, *Merrill*): BOHOL (6729, *McGregor*).

vitticollis FAUST, in litt.

MINDANAO, Davao (16471, *Weber*).

Genus SPHENOPHORUS Schönherr

cumingii WATERH., Ann. & Mag. Nat. Hist. (1886), 18, 318.

Genus CALANDRA Clairville

granaria LINN.,*† Syst. Nat., ed. 10 (1758), 378; GYLH., Schönh. Gen. Curc. (1837), 4, 977.

LUZON, Manila (14623, *Jones*); Cagayan, San Luis (15100, 15409, *Jones*).

oryzae LINN.,*† Amoen. Ac. (1763), 6, 395; OLIV., Ent. (1807), 5, 83, 97, Pl. 7, figs. 81a-b.

frugilega DEGEER, Mem. (1775), 5, 273.

granaria STROEM, Dansk. Vid. Selsk. Skrift (1767), 2, 56.

quadriguttata MONTR., Ann. Soc. Ent. France (1860), 910.

LUZON, Manila (1825, *Schultze*; 13357, 15117, *Jones*).

Genus DIOCALANDRA Faust

frumenti FABR.,*† Syst. Eleuth. (1801), 2, 438; BANKS, Phil. Journ. Sci. (1906), 1, 163, Pl. 10, figs. 6-8.

LUZON, Laguna, Magdalena (1638, 1776, *Schultze, Banks*).

discors FAUST, in litt.

LUZON, Laguna, Los Baños (*coll. Baker*).

Genus LAOGENIA Pascoe

dohrni FAUST, Stett. Ent. Zeitg. (1890), 80.

NEGROS, Occidental Negros, Bago (6332, *Banks*): BOHOL (6745, *McGregor*).

intrusa PASC., Journ. Linn. Soc. London (1874), 76.

BATAN, Babuyan (7778, *McGregor*).

Genus PHAENOMERUS Schönherr

notatus PASC., Journ. Linn. Soc. London (1872), 11, 490, Pl. 13, fig. 2.

sundevalli BOHEM.,† Schönh. Gen. Curc. (1836), 3, 633:

nebulosus MOTSCH., Bull. Mosc. (1863), 2, 530.

LUZON, Laguna, Los Baños (17328, *Baker*).

Genus APHIODA Pascoe

integripennis HELLER, Phil. Journ. Sci., Sec. D (1915), 10, 236.

LUZON, Laguna, Mount Banahao (*coll. Baker*).

CRYPTODERMINÆ

Genus CRYPTODERMA Ritsema

philippinense WATERH., Trans. Ent. Soc. London (1853), 173.

SIPALINÆ

Genus *SIPALUS* Schönherr

granulatus FABR.,† Syst. Eleuth. (1801), 2, 324.

misumenus BOHEM., Schönh. Gen. Curc. (1844), 8, 210.

LUZON, Bataan, Lamao (17008, *Schultze*); Benguet, Irisan (1090, *McGregor*): SIBUYAN (1931, 7441, *McGregor*): MINDORO, Mount Halcon (6416, *Merrill*): MINDANAO, Davao (16476, *Weber*).

COSSONINÆ

Genus *COSSONUS* Clairville

ambitosus FAUST, in litt.

canaliculatus FABR.,† Syst. Eleuth. (1801), 2, 496; SCHÖNH., Gen. Curc. (1844), 4, 1023.

LUZON, Laguna, Magdalena (1761, *Schultze*): BUSUANGA (13932, *Schultze*).

Genus *EUTORNUS* Clark

luzonicus HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 148, fig. 5.

LUZON, Laguna, Los Baños (17342, *Baker*).

rufobasalis HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 150, fig. 6.

LUZON, Laguna, Los Baños (17331, *Baker*).

stricticollis HELLER,† Phil. Journ. Sci., Sec. D (1913), 8, 149, fig. 4.

LUZON, Rizal, Montalban Gorge (5196, *Schultze*).

Genus *RHYNCOLUS* Germar

procer BOHEM., Schönh. Gen. Curc. (1844), 4, 2, 1058.

Genus *TYCHIODES* Wollaston

jansoni WOLL., Cist. Ent. (1874), 8, 201.

Genus *TYCHIOSOMA* Wollaston

gracilirostre WOLL., Trans. Ent. Soc. London (1873), 604.

CENTRININÆ

Genus *APOTOMORRHINUS* Schönherr

submaculatus BOHEM., Schönh. Gen. Curc. (1844), 8, 1, 259.

vestitus HELLER,† in litt.

LUZON, Manila (10237, *Cuzner*; 13657, *Ramos*).

IPIDÆ

PHLOEOTRUPNÆ

Genus *DACTYLIPALPUS* Chapuis

transversus CHAP., Mém. Soc. Roy. Liège (1869), 68; STROHM., Phil. Journ. Sci., Sec. D (1911), 6, 18.

quadratocollis CHAP., Mém. Soc. Roy. Liège (1869), 68.
MINDORO, Baco River (3388, *McGregor*).

HYLESININÆ

Genus *SPHAEROTRYPES* Blandford

- philippinensis* STROHM.,*† Phil. Journ. Sci., Sec. D (1911), 6, 18, Pl. 1.
MINDANAO, Zamboanga (8849, *Hutchinson*).

WEBBINÆ

Genus *WEBBIA* Hopkins

- dipterocarpi* HOPK., U. S. Dept. Agr., Techn. Ser. No. 17, Part 2 (1915), 223.
LUZON, Tayabas, Pagbilao (*Webb*).

CRYPHALINÆ

Genus *HYPOTHENOIDES* Hopkins

- parvus* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 11, Pl. 1, fig. 2.
MINDORO, Calapan (*Webb*).

Genus *PTILOPODIUS* Hopkins

- stephegynis* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 11, Pl. 1, fig. 4, text fig. 1.
MINDORO, Calapan (*Webb*).

Genus *HYPOTHENOMUS* Westwood

- dipterocarpi* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 17.
MINDORO, Calapan (*Webb*).
- webbi* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 17.
MINDORO, Calapan (*Webb*).

Genus *STEPHANODERES* Eichhoff

- glabripennis* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 32.
LUZON, Bulacan, Angat (*Webb*).
- philippinensis* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 31.
LUZON, Bulacan, Angat (*Webb*).
- psidii* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 32.
MINDORO, Calapan (*Webb*).
- pygmaeus* HOPK., U. S. Dept. Agr., Report No. 99 (1915), 24.
LUZON, Tayabas, Pagbilao (*Webb*).
- sterculiae* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 32.
MINDORO, Calapan (*Webb*).
- tamarindi* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 27.
LUZON, Manila (*Lyons*).

Genus *STEPHANORHOPALUS* Hopkins

- nulodori* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 36, Pl. 1, fig. 11.
MINDORO, Calapan (*Webb*).

Genus *MARGADILLIUS* Hopkins

- confusus* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 36.
LUZON, Tayabas, Pagbilao (*Webb*).
erythrinae HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 38.
MINDORO, Calapan (*Webb*).
margadilaonis HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 38, Pl. 1,
fig. 13.
LUZON, Tayabas, Pagbilao (*Webb*).
minutus HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 37.
LUZON, Tayabas, Pagbilao (*Webb*).

Genus *PIPERIUS* Hopkins

- pini* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 39.
LUZON, Benguet, Baguio (*Piper*).

Genus *CRYPHALUS* Erichson

- squamulosus* STROHM., Phil. Journ. Sci., Sec. D (1911), 6, 20.
MINDORO, Calapan (1420, *Webb*).

Genus *HYPOCRYPHALUS* Hopkins

- obscurus* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 42.
MINDORO, Calapan (*Webb*).
rotundus HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 41, Pl. 1, fig. 20.
LUZON, Tayabas, Pagbilao (*Webb*).
striatus HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 42.
MINDORO, Calapan (*Webb*).

Genus *DACRYPHALUS* Hopkins

- obesus* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 42, Pl. 2, fig. 21.
LUZON, Tayabas, Pagbilao (*Webb*).

Genus *COCCOTRYPES* Eichhoff

- graniceps* EICHH.,* Ratio Tornic. (1878), 314; STROHM., Phil. Journ. Sci.,
Sec. D (1911), 6, 21.
NEGROS, Occidental Negros, Bago (1400, *Banks*).
pygmaeus EICHH., Ratio Tornic. (1879), 310.

Genus *CARPOSINUS* Hopkins

- pini* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 47, Pl. 2, fig. 32.
LUZON, Benguet, Baguio (*Piper*).

Genus *OZOPEMON* Hagedorn

- dipterocarpi* HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 49.
LUZON, Tayabas, Pagbilao (*Webb*).
laevis STROHM., Phil. Journ. Sci., Sec. D (1911), 6, 22.
MINDORO, Calapan (1421, *Webb*).
major STROHM., Phil. Journ. Sci., Sec. D (1911), 6, 23.
LUZON, Bataan, Limay (12007, *Alvarez*).

parinari HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 48, Pl. 3, fig. 34.
MINDORO, Calapan (*Webb*).

Genus *COPTOBORUS* Hopkins

terminaliae HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 54.
LUZON, Tayabas, Pagbilao (*Webb*).

Genus *COPTODRYAS* Hopkins

confusa HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 54, Pl. 3, fig. 38.
LUZON, Tayabas, Pagbilao (*Webb*).

Genus *EUWALLACEA* Hopkins

streblicola HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 55.
LUZON, Tayabas, Pagbilao (*Webb*).

Genus *TERMINALINUS* Hopkins

dipterocarpi HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 58.
LUZON, Tayabas, Pagbilao (*Webb*).

terminaliae HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 58, Pl. 4,
fig. 42.
LUZON, Tayabas, Pagbilao (*Webb*).

Genus *BOROXYLON* Hopkins

stephegyni HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 58, Pl. 4, fig. 43.
MINDORO, Calapan (*Webb*).

webbi HOPK., U. S. Dept. Agr., Report No. 99 (1915), 59.
MINDORO, Calapan (*Webb*).

Genus *ARIXYLEBORUS* Hopkins

rugosipes HOPK.,* U. S. Dept. Agr., Report No. 99 (1915), 59, Pl. 4, fig. 44.
LUZON, Tayabas, Pagbilao (*Webb*).

Genus *XYLEBORUS* Eichhoff

capito SCHAUF., Tijdschr. v. Ent. (1897), 40, 215.

perforans WOLL.,*† Cat. Col. Mad. (1857), 96; Col. Hesperid. (1867), 113;
STROHM., Phil. Journ. Sci., Sec. D (1911), 6, 24.
kraatzii EICHH., Berl. Ent. Zeitschr. (1868), 152.
trypanaeoides WOLL., Col. Hesperid. (1867), 114.

perforans var. *philippinensis* EICHH., Mém. Soc. Roy. Liège (1879), 2, 8,
374.

LUZON, Laguna, Magdalena (410, *Schultze*): NEGROS, Occidental Ne-
gros, Bago (416, 1595, *Banks*).

Genus *EURYDACTYLUS* Hagedorn

sexspinosus MOTSCH.,*† Bull. Mosc. (1863), 36, 515; STROHM., Phil. Journ.
Sci., Sec. D (1911), 6, 25.

abnormis EICHH., Berl. Ent. Zeitschr. (1868), 282; Rat. Tomicin.
(1879), 343; Notes Leyden Mus. (1886), 8, 25.

NEGROS, Occidental Negros, Mailum (6498, *Banks*).

PLATYPODIDÆ

Genus *PLATYPUS* Herbst

jansoni CHAP., † Mém. Soc. Roy. Liège (1865), 244, fig. 146; STROHM., Phil. Journ. Sci., Sec. D (1911), 6, 26.

NEGROS, Occidental Negros, Bago (413, *Banks*).

lepidus CHAP., Mém. Soc. Roy. Liège (1865), 282, fig. 171; STROHM., Ent. Blätt. (1911), 7, 204.

philippinensis BLANDF., Trans. Ent. Soc. London (1896), 193.

schultzei STROHM., Phil. Journ. Sci., Sec. D (1911), 6, 26; Wytsm. Gen. Ins. (1914), fasc. 163, 28, Pl. 6, figs. 2, 3.

NEGROS, Occidental Negros, Bago (1594, *Banks*).

setaceus CHAP., Mém. Soc. Roy. Liège (1865), 234, fig. 137.

turbatus CHAP., Mém. Soc. Roy. Liège (1865), 242, fig. 144.
LUZON.

Genus *CROSSITARSUS* Chapuis

comatus CHAP., Mém. Soc. Roy. Liège (1865), 59; fig. 5; STROHM., Phil. Journ. Sci., Sec. D (1911), 6, 26.

NEGROS, Occidental Negros, Bago (417, *Banks*).

flavomaculatus STROHM., Ent. Mitt. (1912), 1, 40, fig. 1; Wytsm. Gen. Ins. (1914), fasc. 163, 35, Pl. 7, figs. 11, 12.

lecontei CHAP., Mém. Soc. Roy. Liège (1865), 60, fig. 6.
LUZON.

PASSALIDÆ

ACERAIINÆ

Genus *ACERAIUS* Kaup

emarginatus WEBER, Obs. Ent. (1801), 1, 81.

indicus in litt.

laevicollis ILLIG., Wiedem. Arch. (1800), 1, 2, 103.

pilifer PERCH., Mon. Passal. (1835), 23, Pl. 2, fig. 2.

LUZON, Manila.

grandis BURM., Handb. (1847), 5, 463.

emarginatus PERCH., Mon. Passal. (1835), 21, Pl. 2, fig. 1.

NEGROS, Occidental Negros, Bago (2779, *Banks*).

helferi KUW., Deutsche Ent. Zeitschr. (1891), 163.

palawanus ZANG, Notes Leyden Mus. (1905), 25, 236.

PALAWAN, Iwahig (13181, *Weber*).

rectidens KUW., Deutsche Ent. Zeitschr. (1891), 163.

Genus *BASILIANUS* Kaup

inaequalis BURM., Handb. (1847), 5, 468.

MACROLINÆ

Genus *MACROLINUS* Kaup

duivenbodei KAUP, Col. Hefte (1868), 3, 19.

latipennis PERCH., Mon. Passal., Suppl. (1841), 1, 8, Pl. 77, fig. 3; BURM., Handb. (1847), 5, 464.

weberi KAUP, Col. Hefte (1868), 3, 19.

VELLEJINÆ

Genus **PELOPS** Kaup

gravidus KUW., Deutsche Ent. Zeitschr. (1891), 168.
MINDANAO.

GONATINÆ

Genus **GONATUS** Kaup

navigator PERCH., Mon. Passal., Suppl. (1844), 2, 1, Pl. 134, fig. 1; KAUP, Col. Hefte (1868), 3, 31.

AULACOCYCLINÆ

Genus **AULACOCYCLUS** Kaup

dilatus KUW., Deutsche Ent. Zeitschr. (1891), 170.

Genus **COMACUPES** Kaup

basalis SMITH, Nomencl. Brit. Mus. (1852), 6, 18, Pl. 1, fig. 5; KAUP, Mon. Passal. (1871), 19, Pl. 1, fig. 3.

comatus KAUP, Col. Hefte (1868), 3, 9.

felderi STOLICZKA, Journ. Asiat. Soc. Beng. (1873), 2, 152.

PAXILLINÆ

Genus **PAXILLOIDES** Kuwert

philippinensis KUW., Deutsche Ent. Zeitschr. (1890), 98.

schmidti KUW., Deutsche Ent. Zeitschr. (1890), 97.

LEPTAULACINÆ

Genus **TRICHOSTIGMUS** Kaup

thoreyi KAUP, Col. Hefte (1868), 3, 13.

Genus **LEPTAULAX** Kaup

bicolor FABR.,† Syst. Eleuth. (1801), 2, 256; PERCH., Mon. Passal. (1835), 69, Pl. 5, fig. 3.

MINDORO, Bongabon (8401, *Schultze*).

dentatus WEBER,† Obs. Ent. (1801), 1, 82; PERCH., Mon. Passal. (1835), 66, Pl. 5, fig. 1.

LUZON, Benguet, Irisan (1064, *McGregor*), Baguio (9922, *Curran*):

MINDORO, Bongabon (8600, *Schultze*): Siquijor (8969, *Celestino*).

differentispina KUW., Deutsche Ent. Zeitschr. (1891), 189.

differentispina var. *subsequens* KUW., Deutsche Ent. Zeitschr. (1891), 189.

eschscholtzii KAUP, Col. Hefte (1868), 3, 14.

manillae KUW., Deutsche Ent. Zeitschr. (1891), 188.

separandus KUW., Deutsche Ent. Zeitschr. (1891), 190.

seperandus var. *maxillonotus* KUW., Deutsche Ent. Zeitschr. (1891), 190.

timoriensis PERCH., Mag. Zool. (1844), 14, 19, Pl. 78, fig. 1; KAUP, Berl. Ent. Zeitschr. (1871), 15, 33.

Genus **LEPTAULACIDES** Zang

palawanicus ZANG, Deutsche Ent. Zeitschr. (1905), 232.

PALAWAN.

palani ILLIG., Wiedem. Arch. (1800), 1, 104.

PALAWAN.

LUCANIDÆ

ODONTOLABINÆ

Genus **ODONTOLABIS** Hope

alces FABR., † Syst. Ent. (1775), 1, 1; OLIV., Ent. (1789), 1, 1, 8, Pl. 2, fig. 3a; BURM., Handb. (1847), 5, 359; LEUTHNER, Trans. Zool. Soc. London (1885), 11, 443, Pl. 89, figs. 1-8.

cumingi HOPE, Cat. Lucan. (1845), 17.

dux WESTW., Ann. & Mag. Nat. Hist. (1841), 124; Cab. Orient. Ent. (1848), 17, Pl. 8, fig. 1.

LUZON, Benguet, Irisan (1097, *McGregor*); Laguna, San Antonio (12800, *Curran*); Bataan, Lamac (17010, *Schultze*): MINDORO, Calapan (12465, *Mrs. N. K. Van Schaick*).

camelus OLIV., † Ent. (1789), 1, 1, 22, Pl. 5, fig. 19; LEUTHNER, Trans. Zool. Soc. London (1885), 11, 446, Pl. 96, figs. 7-9.

alces var. *minor* BURM., Handb. (1847), 5, 359.

carinatus PARRY, Trans. Ent. Soc. London (1864), 2, 76, Pl. 2; REICHE, Ann. Soc. Ent. France (1853), 73; THOMS., Ann. Soc. Ent. France (1862), 394.

gouberti WATERH., Ent. Month. Mag. (1876), 12, 172.

LUZON, Laguna, Paete (*McGregor*).

celebensis LEUTHNER, † Trans. Zool. Soc. London (1885), 11, 442, Pl. 88, figs. 6-8; ALBERS, Deutsche Ent. Zeitschr. (1886), 243; VAN DE POLL, Notes Leyden Mus. (1887), 9, 280.

SIBUYAN (1900, *McGregor*): NEGROS, Occidental Negros, Bago (6015, *Araneta*), Faraon (12199, *Curran*).

fratellus LEUTHNER, Trans. Zool. Soc. London (1885), 11, 472, Pl. 96, figs. 5-6.

LUZON.

gracilis KAUP, Col. Hefte (1868), 4, 77; LEUTHNER, Trans. Zool. Soc. London (1885), 11, 438, Pl. 87, figs. 1-3.

bellicosus var. *PARRY*, Trans. Ent. Soc. London (1870), 67.

MINDANAO.

intermedius VAN DE POLL, Notes Leyden Mus. (1889), 11, 225.

PALAWAN.

- latipennis* HOPE, Cat. Lucan. (1845), 17; LEUTHNER, Trans. Zool. Soc. London (1885), 11, 471, Pl. 96, figs. 1-4.
dejeani REICHE, Rev. & Mag. Zool. (1852), 4, 23, Pl. 1, fig. 4;
 PARRY, Trans. Ent. Soc. London (1864), 2, 76.
 LUZON, Laguna, Paete (McGregor).
tarandus MÖLLENK., Insektenbörse (1902), 19, 283; Deutsche Ent. Zeitschr. (1903), 342.

CLADOGNATHINÆ

Genus CLADOGNATHUS Burmeister

- giraffa* FABR., Syst. Ent., App. (1775), 542; OLIV., Ent. (1789), 1, 21, Pl. 5, fig. 16; BURM., Handb. (1847), 5, 368; REICHE, Ann. Soc. Ent. France (1853), 75.
brahminus HOPE, Trans. Linn. Soc. London (1843), 19, 106.
downesi HOPE, Cat. Lucan. (1845), 19.
 NEGROS, Occidental Negros, Bago (2785, Banks).

Genus METOPODONTUS Hope

- occipitalis* HOPE, Cat. Lucan. (1845), 13.
astericus THOMS., Ann. Soc. Ent. France (1862), 417.
suturalis OLIV., Ent. (1789), 1, 1, 16, Pl. 4, fig. 12; PARRY, Cat. Lucan. (1864), 25.
 PALAWAN, Iwahig (11630, Weber).

Genus PROSOPOCOILUS Hope

- cavifrons* HOPE, Cat. Lucan. (1845), 13.
 ♂ *dorsalis* BURM., Handb. (1847), 5, 370.
 ♀ *tenuipes* HOPE, Handb. (1847), 5, 18.
 LUZON.
dorsalis ERICHS., † Nov. Act. Leop. Car. (1834), 16, Suppl., 241, Pl. 37, fig. 6; BURM., Handb. (1847), 5, 370; PARRY, Trans. Ent. Soc. London (1864), 2, 31.
 LUZON, Bataan, Lamao (8754, Schultze); Laguna, Los Baños (12560, Ledyard).
ebeninus ALB., Deutsche Ent. Zeitschr. (1891), 367; VAN DE POLL, Notes Leyden Mus. (1895), 17, 125, footnote.
 MINDANAO.
lateralis HOPE, Cat. Lucan. (1845), 13; DEYR., Ann. Soc. Ent. Belg. (1865), 9, Pl. 1, fig. 3.
marginatus BURM., Handb. (1847), 5, 369.
palawanicus FELSCH, Phil. Journ. Sci., Sec. D (1912), 7, 97, Pl. 1, fig. 1.
 PALAWAN, Iwahig (11631, Weber).
vittatus DEYR., † Ann. Soc. Ent. Belg. (1865), 9, 28, Pl. 1, fig. 4; PARRY, Trans. Ent. Soc. London (1870), 59.
 LUZON, Tayabas, Pitogo (8772, Curran); SIBUYAN (1901, McGregor):
 NEGROS, Occidental Negros, Faraon (12201, Curran).

Genus *CYCLOMMATUS* Parry

dehaani WESTW., Ann. & Mag. Nat. Hist. (1841), 124; BURM., Handb. (1847), 5, 375; WESTW., Cab. Orient. Ent. (1848), 21, Pl. 10, fig. 2.

affinis PARRY, Trans. Ent. Soc. London (1864), 40.

zuberi WATERH., † Ent. Month. Mag. (1876), 12, 173.

SIBUYAN (1932, *McGregor*): NEGROS, Occidental Negros, Faraon (12202, *Curran*).

DORCINÆ

Genus *EURYTRACHELUS* Thomson

cribriceps CHEVR., † Rev. Zool. (1841), 224.

moloschus HOPE, Cat. Lucan. (1845), 21.

oryx BURM., Handb. (1847), 5, 389.

LUZON, Bataan, Lamao (15958, *Burrell*); Laguna, Los Baños (14201, *Ledyard*): NEGROS, Occidental Negros, Mount Canlaon (6455, *Banks*).

titanus BOISD., † Voy. de l'Astrolabe (1832), 237, Pl. 6, fig. 19; BURM., Handb. (1847), 5, 384; ALBERS, Ann. Soc. Ent. Belg. (1893), 72.

titanus var. *typhon* BOILEAU, Le Naturaliste (1905), 17.

LUZON, Bataan, Lamao (6872, 17011, *Schultze*): MINDORO, Calapan (12464, *Mrs. N. K. Van Schaick*): NEGROS, Occidental Negros (12825, *Banks*).

Genus *METALLACTULUS* Ritsema

parvulus HOPE, † Cat. Lucan. (1845), 25; ALBERS., Deutsche Ent. Zeitschr. (1884), 301.

BATAN, Batanes (7777, *McGregor*): CALAYAN, Babuyan (644, *McGregor*): TICA0 (1447, *McGregor*): POLILLO (12473, *McGregor*).

Genus *AEGUS* MacLeay

acuminatus FABR., † Syst. Eleuth. (1801), 2, 251; BURM., Handb. (1847), 5, 399; REICHE, Ann. Soc. Ent. France (1853), 82; PARRY, Trans. Ent. Soc. London (1864), 52; ALBERS, Deutsche Ent. Zeitschr. (1883), 226.

cicatricosus WIED., Zool. Mag. (1823), 2, 108; PARRY, Trans. Ent. Soc. London (1864), 52.

cornutus THUNB., Mém. Mosc. (1806), 1, 202, Pl. 12, fig. 3.

depressus ILL., Wiedem. Arch. (1800), 1, 105.

falciger WESTW., Ann. Soc. Nat. (1834), 1, 118.

lunatus WEBER, Obs. Ent. (1801), 1, 83, ♀; BURM., Handb. (1847), 5, 400.

luteus WESTW., Trans. Ent. Soc. London (1855), 218, Pl. 12, fig. 4; PARRY, Trans. Ent. Soc. London (1864), 51.

obscurus MACLEAY, Horae Soc. Ent. Ross. (1819), 1, 113.

punctatus FABR., Syst. Eleuth. (1801), 2, 253.

striatellus PERTY, Obs. Col. Ind. (1831), 35.

LUZON, Benguet, Irisan (1477, *McGregor*); Laguna, Los Baños (12559, *Ledyard*): BOHOL (6725, *McGregor*).

- curranii* FELSCH, Phil. Journ. Sci., Sec. D (1912), 7, 98, Pl. 1, fig. 2.
 LUZON, Laguna, Santa Maria (12721, *Curran*).
nitidicollis ALBERS,† Deutsche Ent. Zeitschr. (1883), 227.
 NEGROS, Occidental Negros, Mailum (6269, *Banks*), Faraon (12215, *Curran*).
philippinensis DEYR.,† Ann. Soc. Ent. Belg. (1865), 9, 32, Pl. 2, fig. 5;
 ALBERS, Deutsche Ent. Zeitschr. (1883), 226.
 MINDORO, Bongabon (8382, *Schultze*): NEGROS, Occidental Negros, Faraon (12215, *Curran*).

FIGULINÆ

Genus NIGIDIUS MacLeay

- baeri* BOILEAU, Le Naturaliste (1905), 27, 18.
bonneuilli BOILEAU, Le Naturaliste (1905), 27, 18.
laevicollis WESTW.,† Proc. Zool. Soc. London (1837), 5, 128; Ent. Mag. (1838), 5, 264.
forcipatus BURM., Handb. (1847), 5, 433; WESTW., Ent. Mag. (1838), 5, 267.
 LUZON, Laguna, Magdalena (1630, *Schultze*); Benguet, Irisan (1282, *McGregor*); Bataan, Lamao (6894, *Cuzner*): MINDORO, Bongabon (8381, *Schultze*).
taurus JAKOW., Horae Soc. Ent. Ross. (1900), 34, 640.

Genus FIGULUS MacLeay

- fissicollis* FAIRM., Rev. Zool. (1894), 414.
modestus PARRY, Proc. Ent. Soc. London (1862), 113.
laticollis REICHE, Ann. Soc. Ent. France (1853), 84; THOMS., Ann. Soc. Ent. France (1862), 402; PARRY, Trans. Ent. Soc. London (1870), 115.
manilarum HOPE,† Cat. Lucan. (1845), 26.
 BATAN, Batanes (7775, *McGregor*): LUZON, Manila (2120, 3269, 3579, *Schultze*).

Genus CARDANUS Westwood

- cribratus* PARRY, Trans. Ent. Soc. London (1870), 98.
laevigatus DEYR., Trans. Ent. Soc. London (1874), 412.

SCARABAEIDÆ

COPRININÆ

Genus GYMNOPLEURUS Illiger

- maurus* SHARP, Col. Hefte (1875), 13, 34.
 MINDANAO.
stipes SHARP,† Col. Hefte (1875), 13, 35.
 PALAWAN, Puerto Princesa (9601, *Celestino*), Taytay (17249, *Schultze*): NEGROS, Occidental Negros, Faraon (12200, *Curran*).

Genus CATHARSIUS Hope

aethiops SHARP,† Col. Hefte (1875), 13, 41.

LUZON, Bataan, Lamao (2378, *Celestino*; 6569, *Cuzner*; 7722, *Curran*); Benguet, Cabayan (11502, *McGregor*): MINDORO, Mount Halcon (6451, *Merrill*): NEGROS, Occidental Negros, Mailum (6273, *Banks*): MINDANAO, Camp Keithley (6886, *Clemens*): SIBUYAN (1948, *McGregor*).

mollosus LINN., Syst. Nat., ed. 10 (1758), 1, 543; DRURY, Ill. Exot. Ins. (1770), 1, 68, Pl. 32, fig. 2.

abbreviatus HERBST, Käf. (1789), 2, 53, Pl. 8, fig. 10.

berbiceus HERBST, Käf. (1789), 2, 227, Pl. 16, figs. 1-2.

janus OLIV., Ent. (1789), 1, 101, Pl. 26, fig. 227.

ursus FABR., Syst. Eleuth. (1801), 1, 43.

PALAWAN, Puerto Princesa (5139, *Celestino*), Iwahig (10835, *Schultze*; 13269, *Weber*).

Genus COPRIS Geoffroy

tetraodon GILLET,† Notes Leyden Mus. (1910), 32, 11.

LUZON, Pampanga, Mount Arayat (2980, *Williamson*): MINDORO, Mount Halcon (6418, *Merrill*): MINDANAO, Agusan River (12525, *Celestino*).

Genus ONITIS Fabricius

phartopus LANSE.,† Ann. Soc. Ent. Belg. (1875), 18, 129.

LUZON, Manila (12132, *Schultze*); Benguet, Irisan (1306, 1482, *McGregor*).

Genus ONTHOPHAGUS Latreille

babirusa ESCHSCH., Entom. (1822), 1, 31.

LUZON, Manila (9998, 10232, *Banks*); Rizal, Montalban Gorge (5656, *Banks*); Benguet, Trinidad (8641, *Banks*).

batillifer HAR., Col. Hefte (1875), 14, 138.

PALAWAN.

carinulatus HAR., Ann. Mus. Civ. Genova (1877), 10, 69.

PALAWAN.

luzonicus LANSE.,† Notes Leyden Mus. (1883), 5, 44.

LUZON, Manila (3119, *Schultze*; 10230, *Banks*): MINDORO, Baco River (3389, *McGregor*): NEGROS, Occidental Negros, Bago (6014, *Banks*).

praedatus HAR., Berl. Ent. Zeitschr. (1862), 403.

verticalis BOHEM., Res. Eugen. (1858), 44.

LUZON.

semicupreus HAR.,† Ann. Mus. Civ. Genova (1877), 10, 81.

PALAWAN, Taytay (17170, *Schultze*).

simulans SHARP, Col. Hefte (1875), 14, 60.

MINDORO, Mount Halcon (6372, *Merrill*).

terminatus ESCHSCH., Entom. (1822), 1, 33.

LUZON.

APHODIINÆ

Genus *APHODIUS* Illiger

crenatus HAR.,† Berl. Ent. Zeitschr. (1862), 141; CLOUËT, Ann. Soc. Ent. France (1898), 240.

LUZON, Manila (3300, *Schultze*): MINDORO, Magaran (13440, *Weber*).

globulus HAR., Berl. Ent. Zeitschr. (1859), 207; (1863), 331.

lividus OLIV., Ent. (1789), 1, 86, Pl. 26, fig. 222.

obsoletus FABR., Syst. Eleuth. (1801), 1, 70.

sequens WLK., Ann. & Mag. Nat. Hist. (1858), 2, 207.

marginellus FABR.,† Spec. Ins. (1781), 1, 21; OLIV., Ent. (1789), 1, 91, Pl. 13, fig. 116; HAR., Berl. Ent. Zeitschr. (1862), 141, 146.

LUZON, Laguna, Magdalena (1639, *Schultze*); Nueva Ecija, Cabanatuan (9653, *McGregor*): SIBUYAN (7705, *McGregor*).

reichei HAR., Berl. Ent. Zeitschr. (1859), 210; Ann. Mus. Civ. Genova (1877), 10, 85.

LUZON.

sinuatus HAR.,† Ann. Soc. Ent. France (1860), 614; Berl. Ent. Zeitschr. (1861), 93, 95.

MINDORO, Mount Halcon (6231, *Merrill*).

Genus *ATAENIUS* Harold

peregrinator HAR.,† Ann. Mus. Civ. Genova (1877), 10, 96.

LUZON, Manila (3125, *Schultze*; 8431, *J. Guerrero*; 14893, *Jones*); Benguet, Trinidad (8647, *Banks*).

Genus *RHYPARUS* Westwood

philippinensis ARROW, Ann. & Mag. Nat. Hist. (1905), 15, 538.

HYBOSORINÆ

Genus *PHAEOCHROUS* Castelnau

emarginatus CAST., Hist. Nat. Ins. (1840), 2, 109; HAR., Col. Hefte (1871), 8, 28.

hirtipes MACLEAY, Trans. Ent. Soc. N. S. Wales (1864), 1, 125.

sumatrensis WESTW., Proc. Ent. Soc. London (1841), 41; Ann. & Mag. Nat. Hist. (1842), 458; Trans. Ent. Soc. London (1846), 4, 162.

indicus WESTW., Trans. Ent. Soc. London (1846), 4, 161.

alternatus FAIRM., Journ. Mus. Godeffr. (1879), 112.

FUGA, Babuyan (631, *McGregor*): MINDORO, Baco River (3385, *McGregor*).

philippinensis WESTW.,† Proc. Ent. Soc. London (1841), 41; Ann. & Mag. Nat. Hist. (1842), 458; Trans. Ent. Soc. London (1846), 4, 162, Pl. 11, fig. 2.

PALAWAN, Bacuit (11760, 12257, *Weber*).

ACANTHOCERINÆ

Genus *SYNARMOSTES* Germar

pycinus SHARP, Col. Hefte (1875), 14, 64.

TROGINÆ

Genus **TROX** Fabricius

- montalbanensis* SCHULTZE,† Phil. Journ. Sci., Sec. D (1915), 10, 272, fig. 2.
 LUZON, Rizal, Montalban (*A. de los Reyes*).

CETONINÆ

Genus **PHAEDIMUS** Waterhouse

- cumingi* WATERH.,† Ann. & Mag. Nat. Hist. (1841), 221; Trans. Ent. Soc. London (1845), 36; Arcan. Ent. (1845), 1, 4, Pl. 1, figs. 1, 2; BURM., Handb. (1842), 176; MOHN., Arch. f. Naturgesch. (1873), 39, 114.
 LUZON, Laguna, Paete (*McGregor*): SIBUYAN (1914, *McGregor*): NEGROS, Occidental Negros, Mount Canlaon (6241, *Banks*).
jagori GERST.,† Wieg. Arch. (1862), 1, 362; MOHN., Arch. f. Naturgesch. (1873), 39, 116.
 LUZON, Benguet, Baguio (*Martin*).
mohnikel KRAATZ, Deutsche Ent. Zeitschr. (1893), 76.
mohnikel var. *minor* KRAATZ, Deutsche Ent. Zeitschr. (1894), 107.
wittei KRAATZ,† Deutsche Ent. Zeitschr. (1893), 76.
 SIBUYAN (1937, *McGregor*).

Genus **DICEROS** Lacordaire

- ornatus* HOPE,† Proc. Ent. Soc. London (1841), 33; Trans. Ent. Soc. London (1843), 3, 280; WESTW., Arcan. Ent. (1843), 1, 140, Pl. 36, figs. 6, 7; BURM., Handb. (1842), 3, 219.
ornatus var. *biguttata* WESTW., Arcan. Ent. (1843), 1, 141, Pl. 36, fig. 5; SCHAUM, Ann. Soc. Ent. France (1849), 252.
 LUZON, Tarlac, Anao (1484, *McGregor*); Rizal, Montalban (*A. de los Reyes*).

Genus **HETERORRHINA** Westwood

- confusa* WESTW., Arcan. Ent. (1845), 1, 139, Pl. 36, fig. 2.
bimaculata GORY et PERCH., Mon. Ceton. (1833), 142, Pl. 22, fig. 3.
macleayi KIRBY,† Trans. Linn. Soc. London (1818), 408, Pl. 21, fig. 21; WESTW., Arcan. Ent. (1845), 1, 134, Pl. 33, fig. 4; MOHN., Arch. f. Naturgesch. (1873), 39, 121.
pretiosa ESCHSCH., Entom. (1822), 23.
 LUZON, Laguna, Paete (*McGregor*).
paupera MOHN., Arch. f. Naturgesch. (1873), 39, 124, Pl. 6, fig. 3.
 MINDANAO.
schadenbergi HELLER, Deutsche Ent. Zeitschr. (1895), 281.
 PALAWAN, Iwahig (11636, *Weber*).
simillima MOHN., Arch. f. Naturgesch. (1873), 39, 122, Pl. 6, fig. 2.
 MINDANAO.
versicolor JANS., Notes Leyden Mus. (1888), 10, 207.
 SULU.

Genus **CLINTERIA** Burmeister

formosa MOHN., Arch. f. Naturgesch. (1873), 39, 125, Pl. 6, fig. 4.
MINDANAO.

Genus **AGESTRATA** Eschscholtz

luzonica ESCHSCH.,*† Zool. Atl. (1829), 1, 13, Pl. 4, fig. 8.
splendens GORY et PERCH., Mon. Ceton. (1833), 306, Pl. 59, fig. 3;
MOHN., Arch. Naturgesch. (1873), 39, 19.
CALAYAN, Babuyanes (1052, *McGregor*): LUZON, Bataan, Lamao (7837,
Schultze; 9766, *Stevens*); Rizal, Montalban (*A. de los Reyes*): MIN-
DORO, Mount Halcon (6414, *Merrill*).
parryi WALLACE, Trans. Ent. Soc. London (1868), 4, 534.
PALAWAN, Iwahig (13215, *Lamb*).
semperi MOHN., Arch. f. Naturgesch. (1873), 39, 127, Pl. 6, fig. 5.
LUZON, Cavite, Naic (7712, *Copeland*).

Genus **THAUMASTOPEUS** Kraatz

cupripes WATERH.,† Proc. Ent. Soc. London (1841), 27; Trans. Ent. Soc.
London (1845), 4, 38; MOHN., Arch. f. Naturgesch. (1873), 39,
129.
nigroaenea WATERH., Proc. Ent. Soc. London (1841), 27; Trans.
Ent. Soc. London (1845), 4, 38.
schaumi DESM., Voy. la Bonite (1841), 302, Pl. 2, fig. 13.
ebenus BURM., Handb. (1842), 3, 315.
nitens BLANCH., Liste Cet. Mus. (1842), 17.
CAMIGUIN, Babuyanes (7924, *McGregor*): LUZON, Rizal, Montalban
(9258, *Nash*); Bataan, Lamao (6489, *Carpenter*; 9768, *Stevens*):
BOHOL (6724, *McGregor*).
mcgregori SCHULTZE,† Phil. Journ. Sci., Sec. D (1915), 10, 271, fig. 1b.
LUZON, Laguna, Paete (*McGregor*).
palawanicus HELLER,† Deutsche Ent. Zeitschr. (1899), 357.
PALAWAN, Taytay (17113, *Schultze*).

Genus **PLECTRONE** Wallace

barrotiana BURM.,† Handb. (1842), 3, 319.
TICAO (1083, *McGregor*): LUZON, Laguna, Paete (*McGregor*).
nigrocaerulea WATERH.,† Proc. Ent. Soc. London (1841), 27; Trans. Ent.
Soc. London (1845), 4, 40.
SIBUYAN (1920, *McGregor*): PALAWAN, Taytay (17134, *Schultze*).

Genus **MACRONOTA** Hoffmannsegg

abdominalis MOHN., Arch. f. Naturgesch. (1873), 39, 142, Pl. 7, fig. 3.
LUZON, Bataan, Lamao (15977, *Burrell*).
alboguttata PERRY, Trans. Ent. Soc. London (1849), 5, 182, Pl. 18, fig. 3.
domina THOMS., Typi Ceton. (1878), 16.
flavopunctata BLANCH., Cat. Coll. Ent. (1850), 41; MOHN., Arch. f. Natur-
gesch. (1873), 39, 154.

- flavosignata* MOSER, Deutsche Ent. Zeitschr. (1914), 573.
LEYTE (*Whitehead*).
- gratiosa* MOHN., Arch. f. Naturgesch. (1873), 39, 149, Pl. 7, fig. 8.
LUZON.
- guttulata* WALL., Trans. Ent. Soc. London (1868), 4, 551; MOHN., Arch. f. Naturgesch. (1873), 39, 150, Pl. 7, fig. 9.
- jucunda* MOHN., Arch. f. Naturgesch. (1873), 39, 145, Pl. 7, fig. 5.
MINDANAO.
- luctuosa* SNELL. v. VOLL., Tijdschr. Ent. (1858), 1, 25, Pl. 2, fig. 4.
- luctuosa* subsp. *palawanica* MOSER, Phil. Journ. Sci., Sec. D (1910), 5, 183.
PALAWAN, Iwahig (10725, *Schultze*).
- lugubris* MOHN., Arch. f. Naturgesch. (1873), 39, 152, Pl. 8, figs. 1-2.
LUZON: LEYTE.
- mindanaoensis* MOHN., Arch. f. Naturgesch. (1873), 39, 140, Pl. 7, fig. 2.
MINDANAO.
- philippinensis* WATERH., † Proc. Ent. Soc. London (1841), 27; Trans. Ent. Soc. London (1845), 4, 39; MOHN., Arch. f. Naturgesch. (1873), 39, 136.
auroguttata BURM., Handb. (1842), 3, 323.
LUZON, Rizal, Montalban Gorge (9111, *Schultze*); Benguet, Irisan (1091, *McGregor*); Laguna, Paete (*McGregor*).
- pilosa* MOHN., Arch. f. Naturgesch. (1873), 39, 148, Pl. 7, fig. 7.
MINDANAO.
- propinqua* MOHN., † Arch. f. Naturgesch. (1873), 39, 139, Pl. 7, fig. 1.
MINDANAO, Cabadbaran River (16591, *Weber*).
- regia* FABR., † Syst. Eleuth. (1801), 2, 159; GORY et PERCH., Mon. Ceton. (1833), 316, Pl. 62, fig. 2; WALL., Trans. Ent. Soc. London (1868), 4, 552; MOHN., Arch. f. Naturgesch. (1873), 39, 134.
- regia* var. *bicolor* KRAATZ, Deutsche Ent. Zeitschr. (1899), 122.
- regia* var. *fraterna* WESTW., Trans. Ent. Soc. London (1854), 3, 71, Pl. 7, fig. 5.
LUZON, Benguet, Irisan (850, *McGregor*); Laguna, Paete (*McGregor*).
- sculpticollis* THOMS., Typi Ceton. (1875), 15.
- setosa* MOSER, Deutsche Ent. Zeitschr. (1914), 574.
LUZON, Laguna, Mount Banahao (*Boettcher*).
- sponsa* MOHN., Arch. f. Naturgesch. (1873), 39, 146, Pl. 7, fig. 6.
MINDANAO.
- tricolor* MOHN., † Arch. f. Naturgesch. (1873), 39, 145, Pl. 7, fig. 4.
LUZON, Laguna, Paete (*McGregor*).
- vidua* WALL., Trans. Ent. Soc. London (1868), 4, 550; MOHN., Arch. f. Naturgesch. (1873), 39, 137, Pl. 6, fig. 6.

Genus GLYCYPHANA Burmeister

- aethiessida* WHITE, Nomencl. Brit. Mus. (1841), 1, 20; WALL., Trans. Ent. Soc. London (1868), 4, 568; MOHN., Arch. f. Naturgesch. (1873), 39, 156, Pl. 8, fig. 4.
LUZON.

cuculus BURM.,† Handb. (1842), 3, 352; SCHAUM, Ann. Soc. Ent. France (1849), 263; WALL., Trans. Ent. Soc. London (1868), 4, 575; MOHN., Arch. f. Naturgesch. (1873), 39, 161.

SABTAN, Batanes (11696, *D. C. Worcester*): LUZON, Bataan, Limay (12006, *Alvarez*); Laguna, Paete (*McGregor*); Benguet, Baguio (11333, *F. Worcester*): NEGROS, Occidental Negros, Mount Canlaon (6858, *Banks*).

palawana MOSER, Deutsche Ent. Zeitschr. (1914), 593.

PALAWAN.

peroviridis WALL.,† Trans. Ent. Soc. London (1868), 4, 570.

LUZON, Benguet, Irisan (1734, *McGregor*): BOHOL (6723, *McGregor*).

pexata JANS., Cist. Ent. (1881), 2, 606.

pulcherrima MOHN., Arch. f. Naturgesch. (1873), 39, 157, Pl. 8, fig. 5.

MINDANAO.

robusta MOHN., Arch. f. Naturgesch. (1873), 39, 164, Pl. 8, fig. 7.

SAMAR: LEYTE: MINDANAO.

rubromarginata MOHN., Arch. f. Naturgesch. (1873), 39, 154, Pl. 8, fig. 3.

MINDANAO.

rubroscutellaris MOHN.,† Arch. f. Naturgesch. (1873), 39, 159, Pl. 8, fig. 6.

LUZON, Bataan, Lamao (15954, *Burrell*); Benguet, Baguio (*Schultze*).

vernalis WALL., Trans. Ent. Soc. London (1868), 4, 572.

Genus *ASTRAEA* Mohnike

biguttulata MOHN., Arch. f. Naturgesch. (1873), 39, 171, Pl. 9, fig. 1.

LUZON, Cagayan, Sanchez Mira (14980, *Jones*).

francolina BURM., Handb. (1842), 3, 794; (1847), 5, 556; MOHN., Arch. f. Naturgesch. (1873), 39, 168, Pl. 8, fig. 8.

SAMAR.

margaritacea MOHN.,† Arch. f. Naturgesch. (1873), 39, 170, Pl. 8, fig. 9.

LUZON, Benguet, Irisan (1093, *McGregor*): TICAO (1460, 7476, *McGregor*): ROMBLON (1991, *McGregor*): SIBUYAN (7440, *McGregor*): NEGROS, Occidental Negros, Bago (6519, *Banks*).

multimaculata MOSER, Phil. Journ. Sci., Sec. D (1910), 5, 183.

MINDANAO, Camp Keithley (7294, *Clemens*).

tigrina MOHN.,† Arch. f. Naturgesch. (1873), 39, 172, Pl. 9, fig. 2.

LUZON, Rizal, Montalban Gorge (9110, *Schultze*); Laguna, Paete (*McGregor*).

Genus *CETONIA* Fabricius

gregori MOSER,† Ann. Soc. Ent. Belg. (1906), 278.

LUZON, Benguet, Irisan (1051, *McGregor*); Laguna, Paete (*McGregor*).

Genus *PROTAETIA* Burmeister

albomaculata MOSER, Deutsche Ent. Zeitschr. (1914), 589.

MINDANAO, Davao.

- ambigua* CHEVR., Rev. Zool. (1841), 223; BURM., Handb. (1842), 3, 499;
MOHN., Arch. f. Naturgesch. (1873), 39, 207.
LUZON.
- anovittata* CHEVR., Rev. Zool. (1841), 223; BURM., Handb. (1842), 3, 497;
MOHN., Arch. f. Naturgesch. (1873), 39, 220.
chloris NEWM., The Entom. (1841), 1, 170.
olivacea NEWM., The Entom. (1841), 1, 170.
manillarum CHEVR., Rev. Zool. (1841), 223; BURM., Handb. (1842),
3, 497.
- arrogans* WALL., Trans. Ent. Soc. London (1868), 4, 584; MOHN., Arch. f.
Naturgesch. (1873), 39, 184.
- banksi* MOSER, Phil. Journ. Sci., Sec. D (1911), 6, 332.
NEGROS, Occidental Negros, Bago (6334, *Banks*).
- bifenestrata* CHEVR.,† Rev. Zool. (1841), 223; BURM., Handb. (1842), 3,
492; MOHN., Arch. f. Naturgesch. (1873), 39, 81.
gemella NEWM., The Entom. (1841), 1, 169.
indra HOPE, Proc. Ent. Soc. London (1841), 33; Ann. & Mag. Nat.
Hist. (1841), 8, 303; Trans. Ent. Soc. London (1843), 3, 281;
WALL., Trans. Ent. Soc. London (1868), 4, 579.
- LUZON, Manila; Rizal, Montalban (*Schultze*); Bataan, Lamao (7010,
Cuzner): SIBUYAN (1921, *McGregor*).
- boholica* MOHN., Arch. f. Naturgesch. (1873), 39, 231, Pl. 11, fig. 4.
BOHOL.
- bremei* SCHAUIM,† Ann. Soc. Ent. France (1844), 413; (1849), 278; DOHRN,
Stett. Ent. Zeitg. (1872), 154; (1879), 185.
papalis MOHN., Arch. f. Naturgesch. (1873), 39, 198, Pl. 10, fig. 2.
LEYTE, Borauan.
- chlorotica* BURM.,† Handb. (1842), 3, 500.
germana NEWM., The Entom. (1841), 1, 170.
manillarum LACORD., Gen. Col., 3, 536; WALL., Trans. Ent. Soc.
London (1868), 4, 584.
subviridis NEWM., The Entom. (1841), 1, 170.
LUZON, Rizal, Montalban Gorge (8101, *Schultze*); Bataan, Lamao
(6574, *Cuzner*; 9769, *Stevens*).
- coeruleosignata* MOHN., Arch. f. Naturgesch. (1873), 39, 186, Pl. 9, fig. 7.
MINDANAO.
- compacta* MOHN., Arch. f. Naturgesch. (1873), 39, 234, Pl. 11, fig. 5.
CAMIGUIN.
- dubia* WALL., Trans. Ent. Soc. London (1868), 4, 582; MOHN., Arch. f.
Naturgesch. (1873), 39, 192.
- ducalis* MOHN., Arch. f. Naturgesch. (1873), 39, 196, Pl. 10, fig. 1.
LUZON, Pauai (17046, *Wileman*).
- ferruginea* GORY et PERCH.,† Mon. Ceton. (1833), 196, Pl. 35, fig. 3; BURM.,
Handb. (1842), 3, 491; MOHN., Arch. f. Naturgesch., (1873),
39, 193.
cinnamomea BURM., Handb. (1842), 3, 491.
sybaritica NEWM., The Entom. (1841), 1, 169.
NEGROS, Occidental Negros (*E. H. Taylor*).

- flavomaculata* MOSER, Deutsche Ent. Zeitschr. (1912), 590.
LUZON, Laguna, Mount Banahao (*Baker*).
- flavovariegata* MOHN.,† Arch. f. Naturgesch. (1873), 39, 205, Pl. 10, fig. 6.
MINDANAO, Cagayan, Agusan.
- fusca* HERBST,† Natursyst. Käfer (1790), 3, 257, Pl. 32, fig. 4.
 mandarina WEBER, Obs. Ent. (1801), 68.
 mandarinea BURM., Handb. (1842), 3, 481; SCHAUUM, Ann. Soc. Ent. France (1849), 270.
 atomaria FABR., Syst. Eleuth. (1801), 2, 153.
 fictilis NEWM., Ent. Mag. (1838), 5, 109.
LUZON, Manila (1360, 2117, 2434, 2623, 2877, *Schultze*; 3239, *Banks*):
SIBUYAN (7675, *McGregor*): TICA0 (9603, *McGregor*): NEGROS, Occidental Negros (6308, *Banks*).
- guerini* EYDOUX,† Rev. Zool. (1839), 265; BURM., Handb. (1842), 3, 794;
DESM., Voy. La Bonite (1841), 1, 304, Pl. 2, fig. 14; MOHN., Arch. f. Naturgesch. (1873), 39, 215.
LUZON, Abra, Bangued (395, *Banks*); Benguet, Baguio (11332, *F. Worcester*), Irisan (17076, *Celestino*); Manila (*Mrs. M. Schultze*).
- incerta* MOHN., Arch. f. Naturgesch. (1873), 39, 239, Pl. 11, fig. 8.
MINDANAO.
- irrorata* WALL., Trans. Ent. Soc. London (1868), 4, 588; MOHN., Arch. f. Naturgesch. (1873), 39, 188.
- leucogramma* MOHN., Arch. f. Naturgesch. (1873), 39, 210, Pl. 10, fig. 3.
LUZON.
- lineata* MOHN., Arch. f. Naturgesch. (1873), 39, 204, Pl. 10, fig. 5.
MINDANAO.
- mindoroensis* KRAATZ, Deutsche Ent. Zeitschr. (1894), 298.
MINDORO.
- moerens* MOHN., Arch. f. Naturgesch. (1873), 39, 237, Pl. 11, fig. 7.
MINDANAO.
- multiguttulata* MOHN.,† Arch. f. Naturgesch. (1873), 39, 185, Pl. 9, fig. 6.
LUZON, Manila (*Mrs. M. Schultze*); Rizal, Montalban (*Schultze*).
- nigrobrunnea* MOSER, Ann. Soc. Ent. Belg. (1909), 53, 319.
- nocturna* MOSER,† Ann. Soc. Ent. Belg. (1909), 53, 318.
ROMBLON (1972, *McGregor*).
- nox* JANS., Cist. Ent. (1881), 2, 609, Pl. 11, fig. 3.
MINDORO, Baco River (3162, *McGregor*): MINDANAO, Camp Keithley (7285, *Clemens*).
- philippinensis* FABR.,† Syst. Ent. (1775), 49; OLIV., Ent. (1789), 1, 34, Pl. 10, fig. 97; BURM., Handb. (1842), 3, 496; MOHN., Arch. f. Naturgesch. (1873), 39, 209.
 hieroglyphica GORY et PERCH., Mon. Ceton. (1833), 175, Pl. 31, fig. 1.
- philippinensis* var. *luzonica* KRAATZ, Deutsche Ent. Zeitschr. (1890), 218.
LUZON, Manila (2875, *Schultze*); Tarlac, Gerona (357, *Fernandez*):
SIBUYAN (1919, *McGregor*): ROMBLON (1974, *McGregor*).

- plebeja* MOHN.,† Arch. f. Naturgesch. (1873), 39, 202, Pl. 10, fig. 4.
LUZON, Bataan, Lamao (6895, *Cuzner*).
- procera* WHITE, Proc. Zool. Soc. London (1856), 17, Pl. 41, fig. 6; WALL., Trans. Ent. Soc. London (1868), 4, 580; MOHN., Arch. f. Naturgesch. (1875), 39, 188.
- purpurissata* MOHN., Arch. f. Naturgesch. (1873), 39, 211, Pl. 9, fig. 1.
BABUYANES.
- querula* NEWM., The Entom. (1841), 1, 171; MOHN., Arch. f. Naturgesch. (1873), 39, 208.
- rogeri* BURM., Handb. (1842), 3, 796; MOHN., Arch. f. Naturgesch. (1873), 39, 218.
guerini BURM., Handb. (1844), 5, 556; WALL., Trans. Ent. Soc. London (1868), 4, 581.
LUZON.
- sanguinolenta* HELLER,† Abh. Mus. Dresden (1899), 7, 4.
LUZON, Abra, Bangued (400, *Banks*): SIBUYAN (1922, *McGregor*): ROMBLON (1968, *McGregor*): BOHOL (6722, *McGregor*): NEGROS, Occidental Negros, Bago (6275, *Banks*).
- satrapa* MOHN., Arch. f. Naturgesch. (1873), 39, 222, Pl. 11, fig. 2.
CAMIGUIN.
- scepsia* DOHRN, Stett. Ent. Zeitg. (1872), 157.
LUZON.
- taciturna* GUÉR., Voy. Coquille, Col. (1830), 91, Pl. 3, fig. 12; GORY et PERCH., Mon. Ceton. (1833), 176, Pl. 31, fig. 3; BURM., Handb. (1842), 3, 498.
dejeani GORY et PERCH., Mon. Ceton. (1833), 213, Pl. 39, fig. 4; BURM., Handb. (1842), 3, 792; SCHAUM, Ann. Soc. Ent. France (1844), 383.
LUZON.
- tenuicollis* MOHN., Arch. f. Naturgesch. (1873), 39, 236, Pl. 11, fig. 6.
CAMIGUIN.
- tristicula* KRAATZ, Deutsche Ent. Zeitschr. (1898), 409.
- venerabilis* MOHN., Arch. f. Naturgesch. (1873), 39, 229, Pl. 11, fig. 3.
LUZON, Laguna, Los Baños (*coll. Baker*).
- viridana* MOSER, Ann. Soc. Ent. Belg. (1909), 53, 317.

Genus RHINACOSMUS Kraatz

- zebuanus* KRAATZ, Deutsche Ent. Zeitschr. (1895), 108.
CEBU.

Genus POECILOPHANA Kraatz

- ochroplagiata* HELLER, Deutsche Ent. Zeitschr. (1895), 283.
MINDANAO.

Genus EUGLYPTA Mohnike

- attenuata* MOHN.,† Arch. f. Naturgesch. (1873), 39, 177, Pl. 9, fig. 4.
LUZON, Manila (*Schultze*).

biplagiata MOHN., Arch. f. Naturgesch. (1873), 39, 179, Pl. 9, fig. 5.
BASILAN.

megaspilota WALL.,† Trans. Ent. Soc. London (1868), 4, 587; MOHN., Arch. f. Naturgesch. (1873), 39, 176, Pl. 9, fig. 3.

LUZON, Laguna, Paete (*McGregor*); Tayabas, Tiaong (*A. Worm*).

multiguttata MOHN., Arch. f. Naturgesch. (1873), 39, 181.
MINDANAO.

Genus *CALLYNOMES* Westwood

niveisparsa (WESTW.) MOHN., Arch. f. Naturgesch. (1873), 39, 241.
MINDANAO.

Genus *SPILOVALGUS* Kolbe

modiglianii GESTRO, Ann. Mus. Civ. Genova (1889), 7, 98; KOLBE, Stett. Ent. Zeitg. (1904), 65, 33.

MINDANAO, Agusan River (13692, *Schultze*).

Genus *DASYVALGUS* Kolbe

sellatus KRAATZ,† Deutsche Ent. Zeitschr. (1883), 374.

sellatus var. *luzonicus* KRAATZ, Deutsche Ent. Zeitschr. (1883), 374.

LUZON, Manila (2965, 3074, 9938, *Banks*): PALAWAN, Bacuit (11812, *Weber*).

DYNASTINÆ

Genus *MELANHYPHUS* Fairmaire

semivelutinus FAIRM.,† Ann. Soc. Ent. Belg. (1883), 12.
LUZON, Bataan, Lamao (6484, *Carpenter*).

Genus *ALISSONOTUM* Arrow

pauper BURM.,*† Handb. (1847), 5, 94.

LUZON, Manila (2872, 3224, *Schultze*; 6159, *Banks*; 15098, 15126, *Jones*; 15800, *Loewinsohn*).

Genus *PSEUDOHOMONYX* Arrow

javanus BURM., Handb. (1847), 5, 98.

NEGROS, Occidental Negros, Bago (6021, *Banks*).

Genus *CLYSTER* Arrow

itys OLIV.,† Ent. (1789), 1, 3, 179, Pl. 27, fig. 238.

ajax FABR., Syst. Eleuth. (1801), 1, 14; BURM., Handb. (1847), 5, 211.

LUZON, Bataan, Lamao (7635, *Cuzner*); Benguet, Baguio (13299, *Sanchez*).

Genus *MICRORYCTES* Arrow

monodon FAIRM.,† Ann. Soc. Ent. Belg. (1893), 313; ARROW, Fauna Brit. India, Col. (1910), 1, 305.

LUZON, Laguna, Paete (*McGregor*).

Genus *EOPHILEURUS* Arrow

chinensis FOLD., Mem. Ac. Petr. (1835), 2, 370, Pl. 4, fig. 2.

MINDANAO, Agusan River (17311, *Weber*).

Genus **DIPELICUS** Hope

deiphobus SHARP,† Rev. et Mag. Zool. (1875), 270.

LUZON, Manila (3540, *Brown*; 6512, *Banks*; 11215, *Schultze*; 15194, *Jones*).

Genus **ORYCTES** Illiger

gnu MOHN., Arch. f. Naturgesch. (1874), 261.

trituberculatus LANSB., Bull. Soc. Ent. Belg. (1879), 153.

rhinoceros LINN.,*† Syst. Nat., ed. 10 (1758), 1, 346; OLIV., Ent. (1789), 1, 34, Pl. 18, fig. 166; BURM., Handb. (1847), 5, 202.

LUZON, Manila (775, 914, 1743, *Schultze*; 3060, *Herzog*; 4537, 8145, *Edwards*); Cagayan, Tuguegarao (4583, *Williamson*): SQUIJOR (8976, *Celestino*).

Genus **TRICHOGOMPHUS** Burmeister

milon OLIV., Ent. (1879), 1, 19, Pl. 20, fig. 185; FABR., Syst. Ent. (1775), 1, 16; BURM., Handb. (1847), 5, 220.

Genus **XYLOTRUPES** Hope

dichotomus LINN., Man. Plantar. (1771), 6, 529; OLIV., Ent. (1789), 1, 20, Pl. 17, fig. 156; BURM., Handb. (1847), 5, 265.

gideon LINN., Syst. Nat., ed. 10 (1758), 1, 541; OLIV., Ent. (1789), 1, 14, Pl. 11, fig. 102; BURM., Handb. (1847), 5, 266.

oromedon FABR., Syst. Ent. (1775), 1, 4.

lorquinii SCHAUF.,† Horae Soc. Ent. Ross. (1885), 19, 194.

CALAYAN, Babuyanes (1066, *McGregor*): LUZON, Manila (680, 4551, 9530, *Schultze*; 4516, *Edwards*; 5880, *Banks*; 15195, *Jones*); Cavite, Silang (698, *Canton*); Cagayan, Tuguegarao (4584, *Williamson*): PALAWAN, Iwahig (10848, *Schultze*; 12193, *Weber*).

phorbanta OLIV.,† Ent. (1789), 1, 17, Pl. 1, fig. 6; BURM., Handb. (1847), 5, 267.

pubescens WATERH., Proc. Ent. Soc. London (1841), 22; Ann. & Mag. Nat. Hist. (1841), 7, 539; REICHE, Ann. Soc. Ent. France (1859), 18.

MINDANAO, Baganga (13921, *Sanchez*).

Genus **EUPATORUS** Burmeister

hardwickei HOPE,† Gray's Zool. Misc. (1831), 22; ARROW, Fauna Brit. India, Col. (1910), 1, 268.

MINDANAO.

Genus **CHALCOSOMA** Hope

atlas LINN.,† Syst. Nat., ed. 10 (1758), 345; BLANCH., Voy. Pôle Sud (1853), 106, Pl. 9, fig. 1; DE HAAN, Ann. & Mag. Nat. Hist. (1836), 4, 266.

phidias BLANCH., Voy. Pôle Sud (1853), 107, Pl. 9, figs. 2-3.

hesperus ERICHs., Nov. Act. Leop. Car. (1834), 16, 238, Pl. 37, fig. 5.

CAMIGUIN, Babuyanes (7818, *McGregor*): LUZON, Bataan, Lamao (912, *Merrill*): NEGROS, Occidental Negros, Maao (2786, *Banks*): MINDORO, Baco River (3541, *McGregor*): ROMBLON (4539, *Celestino*): MINDANAO, Camp Keithley (6882, 7300, *Clemens*): PALAWAN, Iwahig (10849, *Schultze*): POLILLO (12026, *Robinson*).

möllenkampl KOLBE, Ent. Nachr. (1900), 94.

RUTELINÆ

ANOMALINI

Genus *ANOMALA* Samouelle

Subgenus *Rhinoplia* Burmeister

infans OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 236.
LUZON.

Subgenus *Heteroplia* Burmeister

flavoscutellata OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 237.
LUZON, Cape Engaño.

macrophthalma OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 236.
LUZON, Cagayan, Aparri (12456, *McGregor*).

sanchezi OHAUS,† Phil. Journ. Sci., Sec. D (1912), 7, 255.
LUZON, Benguet, Baguio (13287, *Sanchez*).

Subgenus *Anomala* Burmeister

bakeri OHAUS, Stett. Ent. Zeitg. (1914), 185.
LUZON, Laguna, Mount Banahao (*coll. Baker*).

camarinensis OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 246.
LUZON, Camarines.

catenatopunctata OHAUS,† Phil. Journ. Sci., Sec. D (1910), 5, 244.
LUZON, Bataan, Lamao (7011, 7347, *Cuzner*; 7384, *Paras*; 10891, *Alvarez*).

despumata OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 243.
LUZON, Manila.

exarata BURM., Handb. (1844), 4, 260; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 242; (1912), 7, 256.
LUZON, Manila: NEGROS.

humeralis BURM.,† Handb. (1844), 4, 262; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 242.

humeralis var. *infusata* OHAUS, in litt.
eydouxii BLANCH., Cat. Coll. Ent. (1850), 192.
LUZON, Manila (403, 2401, 3078, *Banks*; 2803, 2869, 3027, 3116, 12135, *Schultze*); Tarlac, Pura (532, *Fernandez*).

leotaudii BLANCH.,† Cat. Coll. Ent. (1850), 191.

leotaudii var. *fuscoviridis* OHAUS,† Phil. Journ. Sci., Sec. D (1910), 5, 242.
LUZON, Manila (2805, *Schultze*).

micholitzii OHAUS, Ent. Rundsch. (1913), 30, 69.
MINDANAO.

noctivaga OHAUS,† Phil. Journ. Sci., Sec. D (1910), 5, 246.

BATAN, Batanes (7784, *McGregor*): LUZON, Manila (12134, *Schultze*).

ovatula OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 240.

PALAWAN, Bacuit (12313, *Weber*).

palawana OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 241.

PALAWAN.

planata CAND.,† Col. Hefte (1869), 5, 42; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 248.

LUZON, Cagayan, Lallo (10593, *Curran*); Benguet, Irisan (994, 1562, *McGregor*): MINDANAO, Camp Keithley (6899, 6902, *Clemens*).

proctolasia OHAUS,† Phil. Journ. Sci., Sec. D (1910), 5, 293.

POLILLO (12470, *McGregor*).

schultzena OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 247.

LUZON, Manila (12133, *Schultze*).

semperlana OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 241.

LUZON.

sulcatula BURM.,† Handb. (1844), 4, 261.

LUZON, Manila (406, *Banks*); Tarlac, Capas (691, *Roberts*); Bataan, Limay (11935, *Alvarez*): NEGROS, Occidental Negros, Bago (1569, 6024, *Banks*): PALAWAN, Mount Capoas (12381, *Weber*); Taytay (17120, *Schultze*): POLILLO (12471, *McGregor*).

varicolor GYLLENH.,† Schönh. Syn. Ins. (1817), 1, 3, App., 114; BURM., Handb. (1844), 4, 250.

LUZON, Manila (2846, *Schultze*): MINDORO, Baco River (3166, *McGregor*): PALAWAN, Iwahig (12256, *Weber*), Taytay (17115, *Schultze*).

vietipennis OHAUS,† Phil. Journ. Sci., Sec. D (1910), 5, 245.

LUZON, Benguet, Irisan (993, 1555, *McGregor*), Baguio (12452, *McGregor*).

whiteheadi OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 243.

LUZON, Albay.

Subgenus *Aprosterna* Hope

andradei HELLER,† Ent. Nachr. (1893), 322; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 248.

LUZON, Cagayan, Misiones River (10617, *Curran*).

chalybaea BURM.,† Handb. (1844), 4, 282; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 250.

polita BLANCH., Cat. Coll. Ent. (1850), 196.

relucens HAR., Col. Hefte (1869), 196; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 250.

LUZON, Benguet, Irisan River (1561, *McGregor*); Rizal, Montalban Gorge (9112, 9259, *Schultze*).

corruscans CHEVR.,† Rev. Zool. (1841), 222; BURM., Handb. (1844), 4, 282; HELLER, Ent. Nachr. (1893), 321; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 250.

LUZON, Abra, Bangued (396, *Woolley*); Benguet, Baguio (11019, *McGregor*).

exanthemata OHAUS, Stett. Ent. Zeitg. (1914), 186.

LUZON, Laguna, Mount Banahao (*Baker*).

heteroglypha OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 248.

LUZON.

Subgenus *Spilota* Burmeister

boettcheri OHAUS, Stett. Ent. Zeitg. (1914), 189.

PALAWAN, Binaluan (*Boettcher*).

picturata CAND.,† Col. Hefte (1869), 5, 42.

MINDORO, Balete, Baco River (3165, *McGregor*): PALAWAN, Mount Capoas (12385, *Weber*).

Subgenus *Euchlora* MacLeay

anoguttata BURM.,† Handb. (1844), 4, 280.

NEGROS, Occidental Negros, Bago (398, 6020, *Banks*), Faraon (12204, *Curran*): LUZON, Manila (3059, *Herzog*): BATAN, Batanes (11533, *McGregor*).

atrocyanea BURM.,† Handb. (1844), 4, 277.

ROMBLON (1986, *McGregor*): SIBUYAN (7436, *McGregor*).

baeri OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 252.

MINDANAO, Camp Keithley (6884, *Clemens*): PALAWAN, Bacuit (11742, *Weber*).

ceramopyga OHAUS,† Phil. Journ. Sci., Sec. D (1912), 7, 261.

LUZON, Abra, Bangued (397, *Banks*): NEGROS, Occidental Negros, Bago (6019, *Araneta*).

chalcoptera BURM., Handb. (1844), 4, 281.

LUZON: MINDANAO.

chloropyga BURM., Handb. (1844), 4, 281; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 252.

LUZON.

cladera OHAUS,† Phil. Journ. Sci., Sec. D (1912), 7, 257.

MINDANAO, Agusan River (13687, *Schultze*).

dasyphyga BURM., Handb. (1844), 4, 280; OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 256.

LUZON.

encausta CAND., Col. Hefte (1869), 5, 42.

LUZON, Manila: MINDANAO.

expedita OHAUS, Stett. Ent. Zeitg. (1914), 190.

PALAWAN, Binaluan (*Boettcher*).

inconsueta OHAUS,† Phil. Journ. Sci., Sec. D (1910), 5, 250.

LUZON, Benguet, Baguio (11016, *McGregor*): MINDORO, Calapan (12466, *Mrs. N. K. Van Schaick*).

inopinata OHAUS, Stett. Ent. Zeitg. (1914), 188.

LUZON, Laguna, Mount Maquiling (*Baker*).

maculifemorata OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 258.

LUZON.

nitidissima BLANCH., Cat. Coll. Ent. (1850), 194; OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 260.

LUZON.

obesa CAND., Col. Hefte (1869), 5, 41.

LUZON, Manila.

praematura OHAUS,† Phil. Journ. Sci., Sec. D (1910), 5, 251.

NEGROS, Occidental Negros, Maylum (12297, *Banks*).

seticus OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 259.

PALAWAN, Iwahig (13223, *Lamb*).

smaragdina ESCHSCH., Entom. (1822), 18; OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 263.

smaragdula CAST., Hist. Nat. (1840), 2, 135.

LUZON.

trigonopyga OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 263.

Genus *MIMELA* Kirby

blumei HOPE, Trans. Ent. Soc. London (1835), 1, 116; BURM., Handb. (1844), 4, 289.

LUZON, Manila.

maculicollis OHAUS,† Deutsche Ent. Zeitschr. (1908), 636.

SIBAY (11416, *D. C. Worcester*).

palawana OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 252.

PALAWAN, Bacuit (11743, *Weber*), Mount Capoas (12384, *Weber*).

Genus *MALAIA* Heller

thoracica OHAUS,† Phil. Journ. Sci., Sec. D (1910), 5, 253.

LUZON, Benguet, Baguio (*Sanchez*).

Genus *PSEUDOMALAIA* Kraatz

flavopilosa OHAUS, Deutsche Ent. Zeitschr. (1905), 91; Phil. Journ. Sci., Sec. D (1911), 7, 266.

NEGROS.

pilifera BURM.,† Handb. (1844), 4, 546; OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 264.

LUZON, Benguet, Irisan (989, *McGregor*), Cabayan (11506, *McGregor*).

semperi KRAATZ,† Deutsche Ent. Zeitschr. (1892), 178; OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 266.

semperi var. *marginipennis* KRAATZ, Deutsche Ent. Zeitschr. (1892), 179.

semperi var. *pallidipennis* KRAATZ, Deutsche Ent. Zeitschr. (1892), 179.

semperi var. *nigripennis* OHAUS, Stett. Ent. Zeitg. (1914), 192.

LUZON, Laguna, Mount Banahao (*Baker*).

tagala HELLER,† Deutsche Ent. Zeitschr. (1891), 305; OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 265.

LUZON, Benguet, Irisan (8664, *McGregor*): MINDANAO, Agusan River (12511, *Celestino*).

whiteheadi OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 267.

LUZON.

Genus *POPILLIA* Serville

cetrata NEWM., † The Entom. (1841), 223; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 255.

LUZON, Benguet, Irisan (12454, *McGregor*): NEGROS, Occidental Negros, Bago (6324, *Banks*).

conopyga OHAUS, Deutsche Ent. Zeitschr. (1905), 92.

LUZON, Laguna.

depressa KRAATZ, † Deutsche Ent. Zeitschr. (1892), 287.

LUZON, Benguet, Baguio (992, *McGregor*; 11331, *F. Worcester*).

depressiuscula KRAATZ, Deutsche Ent. Zeitschr. (1892), 286.

LUZON, Manila.

mcgregori OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 254.

LUZON, Benguet, Pauai (11199, *McGregor*).

mutans NEWM., Trans. Ent. Soc. London (1841), 3, 39.

mutans var. *relucens* BLANCH., Cat. Col. Ent. (1850), 199.

LUZON, Manila.

oculata OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 255.

LUZON.

scalpta NEWM., † The Entom. (1841), 222; OHAUS, Phil. Journ. Sci., Sec. D (1910), 5, 254.

aemula NEWM., The Entom. (1841), 222.

picticollis KRAATZ, Deutsche Ent. Zeitschr. (1892), 284.

LUZON, Benguet, Irisan (1086, *McGregor*).

scalpta var. *caeca* OHAUS, Stett. Ent. Zeitg. (1914), 192.

scalpta var. *microps* OHAUS, Stett. Ent. Zeitg. (1914), 192.

LUZON, Laguna, Mount Maquiling (*coll. Baker*).

variabilis KRAATZ, † Deutsche Ent. Zeitschr. (1892), 283.

LUZON, Benguet, Irisan (1055, *McGregor*), Baguio (11330, *F. Worcester*).

Genus *PARASTASIA* Westwood

canaliculata WESTW., † Ann. & Mag. Nat. Hist. (1841), 8, 204, 304.

♂ *bipunctata* WESTW., Ann. & Mag. Nat. Hist. (1841), I, 8, 304.

♂ *rubrotessellata* BLANCH., Cat. Coll. Ent. (1850), 217.

CALAYAN, Babuyan (645, *McGregor*): LUZON, Bataan, Lamao (6544, *Curran*); Rizal, Montalban (*Schultze*).

confluens WESTW., Ann. & Mag. Nat. Hist. (1841), I, 8, 304.

♂ *rugosicollis* BLANCH., Cat. Coll. Ent. (1850), 217.

♂ *degenerata* SNELL., Tijdschr. Ent. (1864), 7, 147.

♀ *pileus* SNELL., Tijdschr. Ent. (1864), 7, 147, Pl. 9, fig. 3.

SIBUYAN (7538, *McGregor*): MINDANAO, Camp Keithley (7295, *Clemens*).

discolor WESTW., Ann. & Mag. Nat. Hist. (1841), I, 8, 304.

scutellaris ERICHS., Trans. Ent. Soc. London (1845), 4, 98.

LUZON.

indica OHAUS, Stett. Ent. Zeitg. (1898), 9; Deutsche Ent. Zeitschr. (1900), 257.

nigriceps WESTW., Ann. & Mag. Nat. Hist. (1841), I, 8, 304.

nigroscutellata OHAUS, Deutsche Ent. Zeitschr. (1901), 125.
LUZON, Cape Engaño.

nonfriedi OHAUS, Stett. Ent. Zeitg. (1898), 10.
PALAWAN, Iwahig (10772, *Schultze*).

westwoodi WESTW., Ann. & Mag. Nat. Hist. (1841), I, 8, 304.

MINDORO, Balete, Baco River (3163, *McGregor*): MINDANAO, Zamboanga (8709, *Hutchinson*).

Genus *LUTERA* Westwood

nigromaculata OHAUS, Deutsche Ent. Zeitschr. (1900), 261; (1906), 97.

ADORETINÆ

Genus *ADORETUS* Castelnau

compressus WEBER,† Obs. Ent. (1801), 72; WIEDEM., Zool. Mag., 95; BURM., Handb. (1844), 4, 532; OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 269.

luridus BLANCH,*† Cat. Coll. Ent. (1850), 234.

philippinus PIC, Natural. (1905), 121; OHAUS, Phil. Journ. Sci., Sec. D (1912), 7, 267.

LUZON, Manila (2799, *Banks*; 2811, *Schultze*); Zambales, Olongapo (7577, *Banks*): NEGROS, Occidental Negros, Bago (6018, *Banks*).

ranunculus BURM.,*† Handb. (1844), 4, 475.

LUZON, Manila (402, 1568, 2583, *Banks*; 5953, *Gilkerson*); Rizal, Montalban Gorge (9501, *Schultze*).

semperi OHAUS,† Phil. Journ. Sci., Sec. D (1912), 7, 268.

MINDORO, Bongabon (8394, *Schultze*): ROMBLON (7467, *McGregor*).

MELOLONTHINÆ

Genus *AUTOSERICA* Brenske

analis BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 207.
LUZON.

eremita BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 209.
MINDANAO, Lianga.

nigrorubra BRENSKE,† Mém. Soc. Ent. Belg. (1894), 36; Berl. Ent. Zeitschr. (1899), 44, 208.

LUZON, Manila (2341, 2845, *Schultze*); Rizal, Montalban Gorge (5487, *Banks*); Bataan, Lamao (7346, *Cuzner*): MINDANAO, Camp Keithley (6900, 7289, *Clemens*).

philippinensis BLANCH., Cat. Coll. Ent. (1850), 1, 77; BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 210.

philippinica BRENSKE,† Mém. Soc. Ent. Belg. (1894), 42; Berl. Ent. Zeitschr. (1899), 44, 206.

LUZON, Benguet, Irisan (1054, 7233, *McGregor*), Baguio (12461, *McGregor*; 11362, *F. Worcester*).

stolida BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 210.

PALAWAN.

Genus **NEOSERICA** Brenske

balabaca BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 211.

BALABAC.

lucifuga BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 212.

MINDANAO, Dapitan.

uncinata BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 213.

LUZON.

Genus **MICROSERICA** Brenske

abbreviata BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 216.

MINDANAO, Bitaitai.

fugax ERICHS., Act. Acad. Leop. Carol. (1834), 16, 363; BRENSKE, Berl.

Ent. Zeitschr. (1899), 44, 213; (1902), 47, 51.

LUZON.

humilis BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 218.

LUZON.

liangensis BRENSKE, Berl. Ent. Zeitschr. (1899) 44, 216.

MINDANAO, Lianga.

mindoroana BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 214.

MINDORO.

negrosiana BRENSKE,† Berl. Ent. Zeitschr. (1899), 44, 215.

NEGROS, Occidental Negros, Bago (6500, *Banks*): PALAWAN, Bacuit (12311, *Weber*).

oceana BRENSKE, Mém. Soc. Ent. Belg. (1894), 45; Berl. Ent. Zeitschr. (1899), 44, 218.

palawana BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 214.

PALAWAN.

samarana BRENSKE, Berl. Ent. Zeitschr. (1899), 44, 215.

LUZON: SAMAR: LEYTE.

semperi BRENSKE,† Mém. Soc. Ent. Belg. (1894), 54; Berl. Ent. Zeitschr. (1899), 44, 217.

LUZON, Benguet, Irisan (7234, *McGregor*), Baguio (12460, *McGregor*).

Genus **APOGONIA** Kirby

adoretoides RITSEMA, Notes Leyden Mus. (1897), 19, 123; HELLER, Abh. Mus. Dresden (1897), 4.

bakeri MOSER, Deutsche Ent. Zeitschr. (1915), 127.

LUZON, Laguna, Mount Banahao (*Baker*).

boettcheri MOSER, Deutsche Ent. Zeitschr. (1915), 123.

PALAWAN, Binaluan (*Boettcher*).

cuprescens BLANCH., Cat. Col. Ent. (1850), 1, 228.

LUZON, Manila.

lutea MOSER,† Phil. Journ. Sci., Sec. D (1910), 5, 188.

LUZON, Benguet, Irisan (1559, 7223, *McGregor*), Baguio (13282, *Sanchez*).

magnifica RITSEMA, Notes Leyden Mus. (1897), 19, 122.

metallescens MOSER,† Phil. Journ. Sci., Sec. D (1910), 5, 186.
MINDANAO, Camp Keithley (6901, 7290, *Clemens*).

nigrobrunea MOSER,† Phil. Journ. Sci., Sec. D (1910), 5, 187.
LUZON, Benguet, Irisan (991, 1553, *McGregor*).

oberthüri RITSEMA, Abh. Mus. Dresden (1897), 121.

palawana HELLER,† Abh. Mus. Dresden (1896), 8.
PALAWAN, Bacuit (12309, *Weber*).

rizali HELLER, Notes Leyden Mus. (1897), 19, 191.
MINDANAO, Dapitan.

rugipennis MOSER, Phil. Journ. Sci., Sec. D (1910), 5, 189.
LUZON, Benguet, Irisan (7235, *McGregor*).

squamifera MOSER, Deutsche Ent. Zeitschr. (1915), 129.
LUZON, Laguna, Los Baños (*Baker*).

viridana MOSER, Phil. Journ. Sci., Sec. D (1910), 5, 187.
LUZON, Cagayan, Tapil (10660, *Curran*).

viridifulva HELLER,† Notes Leyden Mus. (1897), 19, 189.
LUZON, Rizal, Montalban Gorge (9266, *Schultze*).

Genus STEPHANOPHOLIS Brenske

philippinensis BRENSKE,† Stett. Ent. Zeitg. (1896), 180.
LUZON, Benguet, Baguio (11015, *McGregor*; 11337, *F. Worcester*):
NEGROS, Occidental Negros, Bago (6010, *Banks*).

Genus EXOPHOLIS Motschusky

philippinica BRENSKE, Stett. Ent. Zeitg. (1896), 179.

Genus LEPIDIOTA Hope

blanchardi DALLA TORRE, Col. Cat. Melonth. (1912), 170.
pruinosa BLANCH., Cat. Coll. Ent. (1850), 1, 298; BRENSKE, Berl.
Ent. Zeitschr. (1892), 37, 39.
LUZON.

corpulenta MOSER,† Phil. Journ. Sci., Sec. D (1910), 5, 185.
LUZON, Cagayan, Tuguegarao (6483, *Williamson*): CEBU, Cebu (7431,
Celestino): MINDANAO, Camp Keithley (6883, *Clemens*).

munda SHARP, Col. Hefte (1876), 15, 71; BRENSKE, Berl. Ent. Zeitschr.
(1892), 37, 39; Mém. Soc. Ent. Belg. (1894), 85.

philippinica BURM.,† Handb. (1855), 4, 537.
PALAWAN, Bacuit (11741, *Weber*): MINDANAO, Zamboanga (13615,
Zschokke).

punctum BLANCH.,† Cat. Coll. Ent. (1850), 157.
LUZON, Cagayan, Tapil (10662, *Curran*), Aparri (10815, *Curran*):
NEGROS, Occidental Negros, Bago (6009, *Banks*).

Genus LEUCOPHOLIS Blanchard

fontainei BRENSKE, Mém. Soc. Ent. Belg. (1894), 78.
MINDANAO.

irrorata CHEVR.,† Rev. Zool. (1841), 222.

pollinosa BURM., Handb. Ent. (1855), 4, 304.

simillima BLANCH., Cat. Coll. Ent. (1850), 1, 158.

irrorata var. *pulverulenta* BURM., Handb. Ent. (1855), 4, 305.

LUZON, Manila (1566, 2864, *Schultze*; 2830, *Banks*); Cavite, Silang (699, *Canton*): NEGROS, Occidental Negros, Bago (6017, *Banks*).

jacquinoti BLANCH., Cat. Coll. Ent. (1850), 1, 158; BURM., Handb. Ent. (1855), 4, 306.

irrorata BLANCH., Voy. Pôle Sud (1853), 4, Pl. 8, fig. 11.

jacquinoti var. *suluana* BRENSKE, Stett. Ent. Zeitg. (1896), 188.

MINDANAO: SULU ISLANDS.

pollens SHARP, Col. Hefte (1876), 15, 80; BRENSKE, Berl. Ent. Zeitschr. (1892), 37, 40.

PALAWAN, Silanga (17072, *Schultze*).

semperi BRENSKE, Stett. Ent. Zeitg. (1896), 194.

Genus *PSILOPHOLIS* Bremske

grandis CAST., Hist. Nat. (1840), 2, 133; BRENSKE, Berl. Ent. Zeitschr. (1892), 37, 61; Stett. Ent. Zeitg. (1894), 55, 275; Mém. Soc. Ent. Belg. (1894), 28; (1900), 152.

manillae REDTB, Reise Novara, Zool. (1868), 2, 69.

pubera BURM., Handb. Ent. (1855), 4, 307.

puberina BLANCH., Cat. Col. Ent. (1850), 1, 138.

LUZON.

Genus *HOLOTRICHIA* Hope

barda BRENSKE, Berl. Ent. Zeitschr. (1893), 38, 358.

MINDANAO.

bipunctata BRENSKE, Berl. Ent. Zeitschr. (1892), 37, 187.

bipunctata var. *minor* BRENSKE, Mém. Soc. Ent. Belg. (1894), 23.

burmeisteri BRENSKE, Berl. Ent. Zeitschr. (1892), 37, 187.

fiachi BRENSKE,† Berl. Ent. Zeitschr. (1892), 37, 165.

LUZON, Laguna, Los Baños (*Schultze*).

latecostata MOSER,† Phil. Journ. Sci., Sec. D (1911), 6, 331.

PALAWAN, Bacuit (11739, *Weber*), Taytay (17118, *Schultze*).

mindanaona BRENSKE, Berl. Ent. Zeitschr. (1893), 38, 358.

LUZON, Manila (2871, 3084, 3225, *Schultze*).

philippinica BRENSKE, Berl. Ent. Zeitschr. (1892), 37, 188.

quadrangulata BRENSKE, Stett. Ent. Zeitg. (1896) 57, 198.

vidua SHARP,*† Col. Hefte (1876), 15, 85; BRENSKE, Berl. Ent. Zeitschr. (1893), 38, 358.

PALAWAN, Iwahig (10847, *Schultze*), Taytay (17117, *Schultze*), Bacuit (11740, *Weber*).

Genus *MELOLONTHA* Fabricius

serrulata GYLL., Schönh. Syn. Ins. (1806), 1, 3, App., 73; BURM., Handb. Ent. (1855), 4, 418.

manilarum BLANCH., Cat. Coll. Ent. (1850), 1, 160.

Genus **SCHÖNHERRIA** Burmeister

hispida BURM., Handb. Ent. (1855), 4, 419.

hispida var. **philippinica** BRENSKE, Mém. Soc. Ent. Belg. (1894), 27.

palawana MOSER, Deutsche Ent. Zeitschr. (1915), 149.

PALAWAN, Binaluan (*Boettcher*).

sulcipennis CASTELN., † Hist. Nat. (1840), 2, 131.

LUZON, Manila (681, 2898, *Schultze*; 5948, *Banks*; 8155, *Gilkerson*):

ROMBLON (1982, *McGregor*): SIBUYAN (7434, *McGregor*).

Genus **HOPLIA** Illiger

maculifera MOSER, † Phil. Journ. Sci., Sec. D (1910), 5, 185.

LUZON, Benguet, Irisan (980, 7225, *McGregor*), Baguio (12453, *McGregor*; 14489, *Sanchez*).

philippinensis MOSER, † Phil. Journ. Sci., Sec. D (1910), 5, 184.

LUZON, Cagayan, Sanchez Mira (*Jones*): NEGROS, Occidental Negros, Bago (6026, *Banks*).

simplex SHARP, Col. Hefte (1876), 15, 66.

EUCHIRINÆ

Genus **EUCHIRUS** Kirby

dupontianus BURM., Germ. Zeitschr. (1841), 3, 227; WESTW., Cab. Orient. Ent. (1848), Pl. 13, figs. 1-2.

quadrilineatus WATERH., Proc. Ent. Soc. London (1841), 22; Ann. & Mag. Nat. Hist. (1841), 7, 539.

MINDANAO, Baganga (14128, *Sanchez*).

SUPPLEMENT

STAPHYLINIDÆ

Genus **OXYTELUS** GravenhorstSubgenus **Anotylus** Thomson

bakeri BERNH., Col. Rundsch. (1915), 2, 21.

LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **MEDON** Stephens

bakeri BERNH., Col. Rundsch. (1915), 2, 22.

LUZON, Laguna, Los Baños (*Baker*).

luzonicus BERNH., Col. Rundsch. (1915), 2, 22.

LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **PHILONTHUS** Curtis

densiventris BERNH., Col. Rundsch. (1915), 2, 24.

LUZON, Laguna, Mount Maquiling (*Baker*).

sublaevis BERNH., Col. Rundsch. (1915), 2, 24.

LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **BELONUCHUS** Nordmann

- bakeri** BERNH., Col. Rundsch. (1915), 2, 25.
LUZON, Laguna, Mount Banahao (*Baker*).

Genus **SILUSA** Erichson

Subgenus **Plagiusa** Bernhauer

- philippina** BERNH., Col. Rundsch. (1915), 2, 27.
LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **COENONICA** Kraatz

- parviceps** BERNH., Col. Rundsch. (1915), 2, 29.
LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **ORPHNEBIUS** Motschulsky

- luzonicus** BERNH., Col. Rundsch. (1915), 2, 29.
LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **PINOPHILUS** Gravenhorst

- philippinus** BERNH., Verh. Zool. Bot. Ges. Wien (1915), 136.
LUZON, Laguna, Los Baños (*Baker*).

Genus **ASTILBUS** Dillwyn

- luzonicus** BERNH., Verh. Zool. Bot. Ges. Wien (1915), 152.
LUZON, Laguna, Mount Maquiling (*Baker*).
plicipennis BERNH., Verh. Zool. Bot. Ges. Wien (1915), 151.
LUZON, Laguna, Mount Maquiling (*Baker*).

COLLYDIIDÆ

COLLYDIINÆ

Genus **XUTHIA** Pascoe

- parallela** SHARP, Journ. Linn. Soc. (1886), 19, 70 and 122, Pl. 6, fig. 5;
HELLER, Wien. Ent. Zeit. (1915), 34, 301.
MINDANAO, Agusan, Butuan (*Baker*).

Genus **COLOBICUS** Latreille

- parilis** PASC., HELLER, Wien. Ent. Zeit. (1915), 34, 301.
MINDANAO, Agusan, Butuan (*Baker*).
rugulosus PASC., Journ. Ent. (1863), 2, 123; HELLER, Wien. Ent. Zeit.
(1915), 34, 302.
LUZON, Laguna, Mount Banahao (*Baker*).

Genus **MICROPRIUS** Fairmaire

- opacus** SHARP, Journ. Linn. Soc. (1886), 19, 70 and 122; HELLER, Wien.
Ent. Zeit. (1915), 34, 303.
LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **NEMATIDIUM** Erichson

posticum PASC., Journ. Ent. (1863), 2, 133; HELLER, Wien. Ent. Zeit. (1915), 34, 302.

PALAWAN, Puerto Princesa (*Baker*).

angustatum GROUV., Ann. Mus. Civ. Genova (1897), 38, 382; HELLER, Wien. Ent. Zeit. (1915), 34, 302.

LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **PETALOPHORA** Westwood

brevimana PASC., Journ. Ent. (1863), 2, 37, Pl. 1, fig. 9; HELLER, Wien. Ent. Zeit. (1915), 34, 303.

LUZON, Laguna, Los Baños (*Baker*).

Genus **PYCNOMERUS** Erichson

reitteri HELLER, Wien. Ent. Zeit. (1915), 34, 303, fig. 1.

LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **CHORITES** Pascoe

oblongus PASC., Journ. Ent. (1863), 2, 139; HELLER, Wien. Ent. Zeit. (1915), 34, 302.

LUZON, Laguna, Mount Banahao (*Baker*).

CERYLINÆ

Genus **BOTHRIDERES** Erichson

opacicollis HELLER, Wien. Ent. Zeit. (1915), 34, 304, fig. 2.

LUZON, Laguna, Paete (*Baker*).

Genus **PSEUDOBOTHRIDERES** Grouvelle

quadratifer HELLER, Wien. Ent. Zeit. (1915), 34, 304, fig. 3.

MINDANAO, Iligan (*Baker*).

Genus **MACHLOTES** Pascoe

incisus PASC., Journ. Ent. (1863), 2, 135; HELLER, Wien. Ent. Zeit. (1915), 34, 302.

LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **METOPIESTES** Pascoe

tubulus SHARP, Journ. Linn. Soc. (1886), 19, 123, Pl. 6, fig. 6; HELLER, Wien. Ent. Zeit. (1915), 34, 302.

LUZON, Laguna, Los Baños (*Baker*).

Genus **CERYLON** Latreille

monticola HELLER, Wien. Ent. Zeit. (1915), 34, 305.

LUZON, Laguna, Mount Maquiling (*Baker*).

RHOPALOCERINÆ

Genus **RHOPALOCEROPHANUS** Heller

bakeri HELLER, Wien. Ent. Zeit. (1915), 34, 307.

LUZON, Laguna, Mount Maquiling (*Baker*).

ECONOMIC APPENDIX

Acanthoscelides obtectus Say.

Found in beans.

Adoretus luridus Blanch.

Adoretus ranunculus Burm.

The larvæ of these two species are injurious to the roots of cultivated plants; the adults feed on the leaves of roses.

Aeolesthes induta Newm.

Feeds in cacao, *Theobroma cacao* Linn.

Aethriostoma gloriosae Fabr.

Found in storehouses.

Agestrata luzonica Eschsch.

Feeds in pandan, *Pandanus tectorius* Sol.

Agnia clara Newm.

Feeds in cacao, *Theobroma cacao* Linn.

Agrilus occipitalis Eschsch.

Injurious to the branches of lemon and orange trees, *Citrus* spp.

Alissonotum pauper Burm.

Very injurious to sugar cane, *Saccharum officinarum* Linn.

Amorphoidea lata Motsch.

Very injurious to cotton, *Gossypium hirsutum* Linn.

Apion strongylodontis Wagn.

Found in fleshy valves of pods of *Strongylodon* sp. (C. F. Baker.)

Apion versutum Faust.

On the rain tree, *Enterolobium saman* (Jacq.) Prain.

Apotomorrhinus vestitus Heller.

In seed pods of *Wrightia lanete* (Blanco) Merr.

Arixyleborus rugosipes Hopk.

Found in *Dipterocarpus grandiflorus* Blanco.

Aspidimerus tristis Weise.

Beneficial; it feeds on insects of the family Aleyrodidæ.

Aspidomorpha miliaris Fabr.

Feeds on *Calonyction bona-nox* Bojer, *Ipomoea triloba* Linn., and *Ipomoea pescaprae* (Linn.) Roth.

Aulacophora coffeae Hornst.

Found on squash, *Cucurbita maxima* Duch.

Batocera albofasciata DeGeer.

Feeds in *Artocarpus communis* Forst.

Batocera numitor Newm.

Very injurious to the cotton tree, *Ceiba pentandra* Gaertn.

Blosyrus philippensis Jek.

Found on *Cissus trifolia* K. Sch.

Boroxylon stephegynia Hopk.

Found in *Stephegyne diversifolia* Hook.

Bostrychopsis parallela Lesne.

Feeding in bamboo, *Bambusa blumeana* Schultes, f.

Bronthispa depressa Baly.

Feeds on bonga china palm, *Normanbya merrillii* Beccari.

Calandra granaria Linn.

Injurious to corn and grain.

Calandra oryzae Linn.

Injurious to rice and other grain.

Callispa cumingi Baly.

Feeds on bamboo, *Bambusa glaucescens* (Willd.) Sieb.

Callispa flavescens Weise.

Feeds on *Bambusa blumeana* Schultes, f.

Carposinus pini Hopk.

Found in *Pinus insularis* Endl.

Caryoborus gonagra Fabr.

Found in warehouses.

Cassida picifrons Weise.

Feeds on *Amaranthus spinosus* Linn.

Chilomenes sexmaculata Fabr.

Very beneficial; feeds on plant lice (Aphidæ) of corn.

Chloridolum australis Lap. and Gory.

Feeds on the ebony tree, *Diospyros pilosanthera* Bl.

Chlorophorus annularis Fabr.

Feeds in bamboo, *Bambusa blumeana* Schultes, f.

Coccotrypes graniceps Eichh.

In cacao, *Theobroma cacao* Linn.

Coelophora inaequalis Fabr.

Very beneficial, feeds on plant lice (Aphidæ).

Collyris albitarsis Erichs.

Larvæ found in branches of madre de cacao, *Gliricida maculata* H. B. and K. Similar larvæ were found in coffee branches.

Coptoborus terminaliae Hopk.

Found in *Terminalia edulis* Blanco.

Coptodryas confusa Hopk.

Found in *Dipterocarpus grandiflorus* Blanco.

Cosmopolites sordidus Germ.

On coconut trees, *Cocos nucifera* Linn.

Cryptogonus orbiculus Gyllh.

Beneficial, feeds on Coccidæ.

Cyamobolus palawanicus Heller.

Very injurious to seeds of *Heritiera littoralis* Dryand.

Cylas turcipennis Bohem.

Very injurious to sweet potatoes, *Ipomoea batatas* (Linn.) Poir.

Cyrtotrachelus lar Erichs.

The larvæ were found in tips of caña bojo, probably *Schizostachyum hirtiflorum* Hack. or *S. mucronatum* Hack.

Dacryphalus *obesus* Hopk.

Found in "margadilao" log.

Dactylispa *bipartita* Guér.**Dactylispa** *cladophora* Guér.**Dactylispa** *infuscata* Chap.

These three species feed on bamboo, *Bambusa blumeana* Schultes f.

Dinoderus *brevis* Horn.

Found in bamboo, *Bambusa blumeana* Schultes f.

Diocalandra *frumenti* Fabr.

On coconut, *Cocos nucifera* Linn.

Docimocaria *cumingi* Muls.

Very beneficial; feeds on Coccidæ (*Monophlebus* sp.).

Eoporis *elegans* Pasc.

Feeds in cacao, *Theobroma cacao* Linn.

Epania *discolor* Pasc.

Feeds in ebony, *Diospyros pilosanthera* Bl.

Epepeotes *ambigenus* Chevr.

Feeds in *Ficus nota* and *Ficus careca*.

Epilachna *pusillanima* Muls.

Very injurious to tomatoes, *Lycopersicum esculentum* Mill.

Epilachna *vigintioctopunctata* Fabr.

Very injurious to tomatoes.

Epipedocera *lunata* Newm.

Injurious to cacao, *Theobroma cacao* Linn.

Euclea *capito* Pasc.

Very injurious to *Terminalia catappa* L., *Barringtonia speciosa* Forst., and mango, *Mangifera indica* Linn.

Eugithopus *plagiatus* Roel.

Found in bejuco, *Calamus* sp.

Eurydactylus *sexspinosus* Motsch.

In cacao, *Theobroma cacao* Linn.

Euwallacea *streblicola* Hopk.

Found in log of *Streblus* sp.

Gibbium *psylliodes* Czemp.

Feeds on argol (cream of tartar).

Gnoma *luzonica* Erichs.

In branches of mango, *Mangifera indica* Linn.

Gonocephalum *depressum* Fabr.

Injurious to young palms; found under fibrous coverings.

Harmonia *octomaculata* Fabr.

Beneficial, feeds on plant lice (Aphidæ) on orange.

Heterobostrychus aequalis Web.

Found in bamboo, *Bambusa blumeana* Schultes f.

Holotrichia vidua Sharp.

Larvæ feed on roots of sugar cane; *Saccharum officinarum* Linn.

Hypocryphalus obscurus Hopk.

Found in "cacao silvestre."

Hypocryphalus rotundus Hopk.

Found in log of *Dipterocarpus grandiflorus* Blanco.

Hypocryphalus striatus Hopk.

Found in *Parinarium* sp.

Hypothenemus dipterocarpi Hopk.

Found in bark of dead branches of *Dipterocarpus palosapis*.

Hypothenemus webbi Hopk.

Found in bark of dead branches of *Cupania* sp.

Hypothenoides parvus Hopk.

Found in dead branches of "lemon silvestre."

Lacoptera luzonica Spaeth.

Feeds on *Ipomoea triloba* Linn.

Lasioderma serricorne Fabr.

Very injurious to tobacco and cigars.

Lophocateres pusillus Klug.

Injurious to stored corn. (C. F. Baker.)

Luperomorpha serricornis Duv.

Injurious to tomatoes.

Macrotoma luzonum Fabr.

Larvæ feed in *Heritiera littoralis* Dry.

Margadillius confusus Hopk.

Found in branches of "tucuen."

Margadillius erythrinae Hopk.

Found in *Erythrina indica* Lam.

Margadillius margadillaonis Hopk.

Found in log of "margadilao."

Margadillius minutus Hopk.

Found in "tucuen" tree.

Mecopus bispinosus Weber.

In dead wood of mulberry, *Morus alba* Linn.

Mecopus hopei Rosensch.

Found in dead wood of mulberry, *Morus alba* Linn.

Metriona trivittata Fabr.

Feeds on *Ipomoea triloba* Linn.

Monochirus moestus Baly.

Feeds on bamboo, *Bambusa blumeana* Schultes f.

Nauphaeus linearis Heller.

Shot-hole weevil of coconut, *Cocos nucifera* Linn.

Necrobia rufipes DeGeer.

Very injurious to copra in warehouses and to other products.

Oryctes rhinoceros Linn.

Very injurious to coconut, *Cocos nucifera* Linn. Larvæ also in large numbers in horse manure.

Ozopemon dipterocarpi Hopk.

Found under bark of *Dipterocarpus grandiflorus* Blanco.

Ozopemon parinarli Hopk.

Found in *Parinarium* sp.

Pachymerus chinensis Linn.**Pachymerus dominicanus** Jekel.**Pachymerus quadrimaculatus** Fabr.

These three species are found in storehouses.

Piperius pini Hopk.

Found in *Pinus insularis* Endl.

Prioptera schultzei Weise.

Feeds on *Premna integrifolia* Linn.

Prioptera sinuata Oliv.

Feeds on *Premna odorata* Blanco.

Promecotheca cumingi Baly.

Very injurious; feeds on leaves of coconut, *Cocos nucifera* Linn.

Psylloides balyi Jacoby.

Injurious to eggplant.

Psylloides splendida Har.

Very injurious to eggplant.

Ptilopodius stephegynis Hopk.

Found in dead branches of *Stephegyne diversifolia* Hook.

Rhabdocnemis lineatocollis Heller.

Injurious to coconut, *Cocos nucifera* Linn., and bonga, *Areca catechu* Linn.

Rhynchophorus ferrugineus Oliv.

Very injurious to coconut, *Cocos nucifera* Linn.

Rhynchophorus pascha Bohem.

Injurious to coconut, *Cocos nucifera* Linn.

Rondibilis spinosula Pasc.

Feeds in cacao, *Theobroma cacao* Linn.

Silvanus surinamensis Linn.

Found in flour.

Sipalus granulatus Fabr.

Found in rotting trunks of *Aleurites moluccanus* Blume. (C. F. Baker.)

Sitodrepa panicea Linn.

In tobacco.

Sphaerotrypes philippinensis Strohm.

In yacal, *Hopea* sp.

Stephanoderes glabripennis Hopk.

Stephanoderes philippinensis Hopk.

Found in dead twigs of "lobalog," *Bridelia stipularis* Blume.

Stephanoderes psidii Hopk.

Found in dead branches of *Psidium* sp.

Stephanoderes sterculiae Hopk.

Found in dead twigs of *Sterculia* sp.

Stephanoderes tamarindi Hopk.

Found in twigs of *Tamarindus indica* Linn.

Stephanorhopalus nulodori Hopk.

Found in bark of dead twigs of *Nulodorum* [*Melodorum?*] *fulgens*.

Sthenias varius Oliv.

Very injurious to cacao, *Theobroma cacao* Linn.

Synonymcha grandis Thunb.

On bamboo, *Bambusa blumeana* Schultes f. Very beneficial; feeds on scale insects (Coccidæ).

Terminalinus dipterocarpi Hopk.

Found in *Dipterocarpus grandiflorus* Blanco.

Terminalinus terminaliae Hopk.

Found in *Terminalia edulis* Blanco.

Tenebroides mauritanicus Linn.

Found in warehouses on corn, etc.

Thaneroclerus buqueti Lef.

Very beneficial, feeds on the larvæ and pupæ of *Lasioderma serricorne* Fabr., the cigarette beetle.

Tribolium ferrugineum Fabr.

Found in warehouses on dried copra, etc.

Xyleborus perforans Woll.

Found in coconut, *Cocos nucifera* Linn.

INDEX TO SUBGENERA, GENERA, AND THE HIGHER GROUPS

A

Abirus, 84.
ACANTHOCERINÆ, 161.
 Acanthoscelides, 79.
ACERAIINÆ, 154.
 Aceraius, 154.
 Achthophora, 111.
 Aclees, 139.
 Acmaeodera, 51.
 Acorynus, 122.
 Acrocrypta, 92.
 Acronia, 115.
 Acytopeus, 146.
 Adelocera, 59.
ADEPHAGA, 4.
ADORETINÆ, 176.
 Adoretus, 176.
 Aegus, 158.
 Aeolesthes, 104.
 Aeolus, 61.
 Aesiotes, 138.
 Aetheomorpha, 81.
 Aethriostoma, 40.
 Agametina, 144.
 Agelasta, 112.
 Agestrata, 163.
 Agnia, 111.
 Agonia, 101.
 Agoniella, 101.
 Agonischius, 65.
 Agrilus, 56.
 Agrypnus, 59.
 Alaus, 60.
 Alcides, 142.
ALCIDINÆ, 142.
 Aleochara, 23.
 Alesia, 37.
 Alissonotum, 169.
 Allecula, 76.
ALLECULIDÆ, 76.
ALLECULINÆ, 76.
 Allochotes, 47.
 Alphonobius, 69.
AMARYGMINÆ, 73.
 Amarygmus, 73.
AMBATINÆ, 139.
 Amichrotus, 22.
 Amorphoidea, 141.
 Amphicordus, 126.
 Amphisternus, 34.
 Anadastus, 31.
 Anancylus, 110.
 Anasia, 25.
 Ancaeus, 17.
 Anchastus, 63.
 Ancistria, 30.
 Anisodactylus, 12.
 Anisodera, 99.
ANOBIIDÆ, 48.
ANOBIINÆ, 48.
 Anomala, 171.
Anomalini, 171.
 Anoplophora, 109.

ANTHICIDÆ, 78.

Anthicoclerus, 47.
 Anthicus, 78.
ANTHONOMINÆ, 141.
 Anthracias, 71.
ANTHRIBIDÆ, 121.
 Anthribus, 124.
 Anubis, 107.
 Aphanisticus, 57.
 Aphanobius, 65.
 Aphioda, 149.
APHODIINÆ, 161.
 Aphodius, 161.
 Aphrodisium, 106.
 Aphthona, 93.
 Apion, 140.
APIONINÆ, 139.
 Apobletes, 26.
 Apocyrtus, 131.
 Apoderus, 140.
 Apogonia, 177.
 Apolecta, 125.
 Apomecyna, 116.
 Apotomorrhinus, 150.
 Apries, 143.
 Apriona, 112.
 Aprosterna, 172.
 Apterorrhinus, 126.
 Araecerus, 125.
 Araecorynus, 125.
 Arixyleborus, 153.
 Artactes, 71.
 Artapocyrtus, 132.
 Aspidimerus, 38.
 Aspidolopha, 81.
 Aspidomorpha, 95.
 Astathes, 120.
 Astenus, 21.
 Astilbus, 131.
 Astraea, 165.
 Asyteta, 144.
 Ataenius, 161.
 Atasthalus, 68.
ATERPINÆ, 138.
 Atheta, 23.
 Atholus, 28.
 Atractocerus, 48.
ATTAGENINÆ, 40.
ATTELABINÆ, 140.
 Aulacocaelius, 9.
 Aulacochilus, 32.
AULACOCYCLINÆ, 155.
 Aulacocylus, 155.
 Aulacophora, 87.
 Auletobius, 140.
 Aulexis, 82.
 Autosericia, 176.

B

BALANININÆ, 140.
 Balaninus, 140.
 Baralipon, 103.
 Baratus, 73.
BARIDINÆ, 146.

Baryrrhynchus, 126.
 Basilianus, 154.
 Basitropis, 124.
 Batocera, 111.
 Batraxis, 24.
 Batrisocenus, 24.
 Batrisodes, 24.
 Belionota, 55.
 Belonuchus, 23, 181.
 Berosus, 40.
 Bledius, 18.
 Blepharida, 94.
 Blosyrus, 126.
BOLITOPHAGINÆ, 67.
 Bolitrium, 68.
 Borolius, 17.
 Boroxylon, 153.
BOSTRYCHIDÆ, 49.
 Bostrychopsis, 49.
 Bothrideres, 182.
 Botryonopa, 99.
 Brachidius, 11.
BRACHININÆ, 11.
BRACHYDERINÆ, 126.
 Brachynus, 14.
 Bradymerus, 67.
BRENTHIDÆ, 125.
BRENTHINÆ, 125.
 Bronthispa, 100.
 Brumus, 38.
 Buphonida, 91.
BUPESTIDÆ, 50.
 Byrsax, 68.

C

Cacia, 112.
 Calandra, 149.
CALANDRINÆ, 146.
 Calidiopsis, 137.
 Callilanguria, 31.
 Callimerus, 45.
 Callineda, 37.
 Callirrhapis, 41.
 Callispa, 100.
 Callynomes, 169.
 Calochromus, 42.
 Calodromus, 125.
 Calophotia, 43.
 Campsosternus, 61.
 Campptorrhinus, 143.
 Cantharis, 44.
 Canthydrus, 13.
CARABIDÆ, 4.
 Cardanus, 159.
 Cardiophorus, 64.
 Cardiotarsus, 64.
 Caria, 36.
CARPOPHILINÆ, 29.
 Carpophilus, 29.
 Carposinus, 152.
 Caryoborus, 79.
 Casnoidea, 10.
 Casnonidea, 75.
 Cassida, 98.

- CASSIDINÆ, 95.**
 Castalia, 51.
 Catachaenus, 127.
 Catapiestus, 71.
 Catascopus, 10.
 Catharsius, 160.
 Catoxantha, 51.
CEBRIONIDÆ, 66.
 Cebriorhipis, 66.
CELEUTHETINÆ, 136.
CENTRININÆ, 150.
 Centrinopsis, 146.
 Centrophthalmus, 25.
 Cepurellus, 139.
CERAMBYCIDÆ, 102.
CERAMBYCINÆ, 103.
 Cercidocerus, 148.
 Cereopsius, 110.
 Ceresium, 105.
 Cerobates, 125.
 Cerogria, 75.
 Ceropria, 68.
CERYLINÆ, 182.
 Cerylon, 182.
 Cetonia, 165.
CETONINÆ, 162.
 Chalcosoma, 170.
 Charichirus, 20.
 Chemodasus, 67.
 Chilocorus, 38.
 Chilomenes, 35.
 Chirida, 98.
 Chirozetes, 144.
CHLAENIINÆ, 12.
 Chlaenius, 12.
CHLAMYDINÆ, 81.
 Chloridolum, 106.
 Chlorophorus, 107.
 Choeromorpha, 113.
 Chorites, 182.
 Chreonoma, 121.
 Chrysobothris, 55.
 Chrysochroa, 51, 52.
 Chrysodema, 54.
CHRYSOMELIDÆ, 79.
CHRYSOMELINÆ, 86.
 Chrysopida, 83.
 Cicindela, 7.
CICINDELINÆ, 4.
 Cionus, 142.
 Cisseicoraebus, 54.
 Cissites, 77.
 Cistelomorpha, 76.
 Cladiscus, 45.
CLADOGNATHINÆ, 157.
 Cladognathus, 157.
 Cleomenes, 108.
CLEONINÆ, 138.
 Cleonus, 138.
 Cleoporus, 85.
 Cleorina, 85.
CLERIDÆ, 45.
CLERINÆ, 45.
 Clinteria, 163.
 Clivina, 7.
 Clypeodyctes, 13.
 Clypeolaria, 83.
 Clyster, 169.
CLYTRINÆ, 81.
 Clyzomedus, 113.
 Cnecodes, 92.
CNODALONINÆ, 71.
COCCINELLIDÆ, 35.
 Coccotrypes, 152.
 Coelophora, 36.
 Coenobius, 81.
 Coenolanguria, 31.
 Coenonica, 23, 181.
 Colaspoides, 86.
 Colasposoma, 84.
 Collyris, 4.
 Colobicus, 33, 181.
 Colpodes, 9.
COLYDIIDÆ, 33, 181.
COLYDIINÆ, 181.
 Comacupes, 155.
 Comusia, 103.
 Copelatus, 14.
COPRININÆ, 159.
 Copris, 160.
 Coproporus, 23.
 Coptoborus, 153.
 Coptodryas, 153.
 Coptos, 112.
 Coptorhynchus, 137.
 Coraebus, 56.
CORYNETINÆ, 47.
 Corynodes, 85.
 Cosmopolitus, 143.
COSSONINÆ, 150.
 Cossonus, 150.
COSSYPHINÆ, 70.
 Cossyphus, 70.
CRATOCERINÆ, 11.
CRIOCERINÆ, 80.
 Crioceris, 80.
 Crossitarsus, 154.
CRYPHALINÆ, 151.
 Cryphalus, 152.
 Cryptobium, 21.
CRYPTOCEPHALINÆ, 81.
 Cryptocephalus, 81.
 Cryptodactylus, 56.
 Cryptoderma, 149.
CRYPTODERMINÆ, 149.
 Cryptogonus, 36.
CRYPTORHYNCHINÆ, 143.
CUCUJIDÆ, 30.
CUPEDIDÆ, 16.
 Cupes, 16.
GURCULIONIDÆ, 126.
 Cyamobolus, 144.
 Cyaniris, 81.
 Cybister, 15.
 Cyclommatus, 153.
 Cyclotoma, 35.
 Cylas, 139.
 Cylidroctenus, 45.
 Cylidrus, 45.
 Cylindromorphus, 57.
 Cylistosoma, 23.
 Cynorta, 89.
 Cyphagogus, 125.
CYPHALEINÆ, 71.
 Cyphicerus, 138.
 Cyphogastra, 54.
 Cyrtoscydmus, 25.
 Cyrtotrachelus, 146.
 D
 Dacnotillus, 25.
 Dacryphalus, 152.
 Dactylipalpus, 150.
 Dactylispa, 101.
 Dactylosternum, 41.
 Daedania, 145.
DASCILLIDÆ, 41.
DASCILLINÆ, 41.
 Dascillus, 41.
 Dasyroclerus, 46.
 Dasyvalgus, 169.
 Demodes, 109.
 Demonax, 108.
 Dendrophagus, 30.
 Dendrotrogus, 124.
 Dercetes, 88.
 Dermestes, 40.
DERMESTIDÆ, 40.
DERMESTINÆ, 40.
 Derolus, 104.
 Derosphaerus, 71.
 Desmidophorus, 143.
 Dialeges, 105.
 Diamesus, 26.
DIAPERINÆ, 68.
 Diaphanes, 43.
 Diapromorpha, 81.
 Diaxenes, 116.
 Dicercomorpha, 55.
 Dicerus, 162.
 Dietopsis, 76.
 Dietytus, 73.
 Dihammus, 110.
 Dilatotarsa, 6.
 Dimax, 93.
 Dineutes, 16.
 Diocalandra, 149.
 Diochares, 109.
 Diochus, 22.
 Diorthus, 104.
 Dioryche, 12.
 Dipelicus, 170.
 Diploconus, 64.
DISCOLOMIDÆ, 33.
 Ditoneces, 42.
 Diurus, 126.
 Docimocaria, 36.
 Dolicaon, 21.
 Dolichoctis, 10.
 Doliema, 69.
 Doliops, 115.
 Donacia, 79.
DONACIINÆ, 79.
 Donoderus, 49.
DORCINÆ, 158.
 Doryda, 88.

Drasterius, 61.
DRYOPIDÆ, 40.
 Drypta, 10.
DRYPINÆ, 10.
DYNASTINÆ, 169.
 Dyscerus, 139.
DYTISCIDÆ, 12.
DYTISCINÆ, 14.

E

Ectatorhinus, 143.
 Ectoemus, 126.
 Elater, 62.
ELATERIDÆ, 59.
 Eleusis, 17.
 Emporius, 30.
 Encaustes, 32.
 Encyalesthus, 70.
 Encymon, 34.
 Endelus, 58.
 Endomia, 79.
ENDOMYCHIDÆ, 33.
ENDOMYCHINÆ, 34.
 Endymia, 144.
 Enganodia, 74.
ENHYDRINÆ, 16.
 Enneamera, 94.
 Enoplorus, 40.
 Enochrus, 41.
 Eophileurus, 169.
 Eoporis, 117.
 Epania, 106.
 Epaphra, 117.
 Epepeotes, 109.
 Epicauta, 77.
 Epidelus, 52.
 Epiechinus, 28.
 Epierus, 28.
 Epilachna, 39.
 Epipedocera, 108.
 Episcapha, 33.
 Episcaphula, 33.
 Episomus, 138.
EREMNINÆ, 138.
 Eretes, 15.
 Ergania, 141.
ERIRHININÆ, 139.
EROTYLIDÆ, 31.
EROTYLINÆ, 33.
 Erystus, 94.
 Ethas, 64.
EUCHIRINÆ, 180.
 Euchirus, 180.
 Euchlora, 173.
 Euclea, 114.
EUCNEMIDÆ, 58.
 Eucorynus, 124.
 Eucyrtus, 72.
 Eugigas, 121.
 Eugithopus, 148.
 Euglypta, 168.
 Euglyptonotus, 73.
 Eugnathus, 127.
 Eulichas, 41.
 Eulissus, 21.
 Eumaea, 89.

EUMOLPINÆ, 81.
 Eumorphus, 34.
 Euoplia, 109.
 Euops, 140.
 Eupachyrrhynchus, 131.
 Eupatorus, 170.
 Eupyrigops, 137.
 Eurydactylus, 153.
 Euryphagus, 108.
 Eurytrachelus, 158.
 Eustathes, 121.
 Euthyastus, 111.
 Eutochia, 69.
 Eutornus, 150.
 Euwallacea, 153.
 Examnes, 106.
 Exema, 81.
 Exopholis, 178.

F

FIGULINÆ, 159.
 Figulus, 159.
 Formicomus, 78.
 Fornax, 58.

G

Galba, 58.
 Galerucella, 88.
GALERUCINÆ, 86.
 Gastrocentrum, 45.
 Gaurambe, 29.
 Gelonaetha, 106.
GIBBIINÆ, 49.
 Gibbium, 49.
 Glenea, 117.
 Glycyphana, 164.
 Glyphilanguria, 31.
 Glyphonix, 66.
 Gnatholea, 105.
 Gnoma, 112.
GONATINÆ, 155.
 Gonatus, 155.
GONIPTERINÆ, 138.
 Gonocephalum, 67.
 Gonophora, 101.
 Gymnopleurus, 159.
GYRINIDÆ, 16.
GYRININÆ, 16.
 Gyrinus, 16.

H

Habryna, 114.
 Halme, 108.
HALTICINÆ, 92.
 Haplosomyx, 89.
 Haplotrichus, 54.
 Harmonia, 35.
HARPALINÆ, 12.
 Hectarthrum, 30.
HELOPINÆ, 73.
 Hemicera, 68.
 Hemiope, 66.
 Henarrhodes, 126.
 Hesperus, 22.
 Heterobostrychus, 50.
HETEROCERIDÆ, 41.
 Heterocerus, 41.

Heteroclitomorpha, 114.
 Heteroderes, 61.
 Heteroglymma, 136.
 Heteroneda, 37.
 Heteroplia, 171.
 Heteroplites, 126.
 Heterorrhina, 162.
HETEROTARSINÆ, 71.
 Hippopsis, 116.
HISPINÆ, 99.
 Hispodonta, 100.
 Hispomorpha, 111.
 Hister, 28.
HISTERIDÆ, 26.
 Hololepta, 26.
 Holotrichia, 179.
 Homalocyrtus, 136.
 Homonoea, 118.
 Hoplandria, 23.
 Hoplasoma, 91.
 Hoplia, 180.
 Hoplionata, 95.
 Hoplocerambyx, 104.
 Horia, 77.
 Hormocerus, 126.
 Hucus, 123.
 Hybosoma, 32.
HYBOSORINÆ, 161.
 Hydaticus, 14.
 Hydrocoptus, 13.
HYDROPHILIDÆ, 40.
HYDROPHILINÆ, 40.
 Hydrophilus, 41.
HYDROPORINÆ, 12.
 Hydrous, 40.
 Hydrovatus, 13.
HYLESININÆ, 151.
HYLOBIINÆ, 139.
HYPERINÆ, 139.
 Hyphydrus, 12.
 Hypnoidus, 63.
 Hypocryphalus, 162.
 Hypomeces, 127.
 Hypophloeus, 70.
 Hyposoma, 54.
 Hypostenus, 19.
 Hypothenomus, 151.
 Hypothenoides, 151.

I

Ichthyurus, 44.
 Ichthyodes, 114.
 Idorhynchus, 136.
 Idotasia, 145.
 Indalmus, 35.
 Inoplectus, 30.
 Intempus, 24.
IPIDÆ, 150.
 Ipothalia, 107.
 Iridotaenia, 52.
 Isopterus, 127.
ISORHYNCHINÆ, 146.
ITHYPORINÆ, 143.

L

Lacconectes, 14.
LACCOPHILINÆ, 13.

Laccophilus, 13.
 Laccoptera, 97.
 Lachnopterus, 105.
 Lacon, 59.
LAEMOSACINÆ, 141.
 Lagria, 74.
LAGRIIDÆ, 74.
LAGRIINÆ, 74.
 Laius, 44.
LAMIINÆ, 109.
 Lampira, 55.
LAMPROCERINÆ, 42.
LAMPYRIDÆ, 42.
LAMPYRINÆ, 43.
LANGURIINÆ, 31.
 Laodia, 146.
 Laogenia, 149.
LARIIDÆ, 79.
 Lasioderma, 48.
 Lathrobium, 20.
LEBIINÆ, 10.
 Leis, 37.
 Lema, 80.
 Leontium, 107.
 Lepidiota, 178.
 Leptaulacides, 156.
LEPTAULACINÆ, 155.
 Leptaulax, 155.
 Lesticus, 9.
 Leucopholis, 178.
 Lindinia, 83.
 Lioptera, 10.
 Liopygus, 27.
 Lispinus, 17.
 Lissochila, 99.
 Litocerus, 122.
 Lixus, 138.
 Lobotrachelus, 146.
 Longitarsus, 93.
 Lophocateres, 29.
 Lophocnemis, 74.
LUCANIDÆ, 156.
 Luciola, 43.
LUCIOLINÆ, 43.
 Ludigenus, 65.
 Ludius, 65.
 Lumetus, 41.
 Luperomorpha, 93.
 Lutera, 176.
LYCIDÆ, 42.
LYMEXYLONIDÆ, 48.
 Lyprops, 71.
 Lyterius, 146.
LYTTIDÆ, 77.

M

Machlotes, 182.
 Macratia, 77.
 Macrocyrtus, 182.
MACROLINÆ, 154.
 Macrolinus, 154.
 Macronota, 163.
 Macroscythos, 59.
 Macrosiagon, 77.
 Macrotona, 102.
MADARINÆ, 146.

Malachius, 44.
 Malaia, 174.
 Margadillius, 152.
 Mecistocerus, 143.
 Mecocerina, 122.
 Mecocerus, 121.
 Mecopus, 145.
 Mecotropis, 121.
 Mecynotarsus, 78.
 Medon, 20, 180.
MEGALOPINÆ, 81.
 Megaloxantha, 51.
 Megapenthes, 62.
 Megapyga, 96.
 Megarrhinus, 141.
 Megopis, 103.
 Melambia, 29.
 Melanhyphus, 169.
 Melanotus, 64.
 Melanoxanthus, 62.
 Melibaeus, 56.
 Melolontha, 179.
MELOLONTHINÆ, 176.
MELYRIDÆ, 44.
 Menippus, 89.
 Meristhus, 60.
 Mesomorphus, 66.
 Metabelus, 81.
 Metallactulus, 158.
 Metapocyrtus, 182, 184.
 Metialma, 146.
 Metopiestes, 182.
 Metopodontus, 157.
 Metriona, 98.
 Metriorrhynchus, 42.
 Micrencaustes, 32.
 Microlophia, 115.
 Microprius, 181.
 Microcytes, 169.
 Microserica, 177.
 Mimastra, 91.
 Mimela, 174.
 Mimomorpha, 116.
 Mindana, 92.
 Minyrus, 141.
 Miscelus, 10.
 Monochirus, 101.
 Monolepta, 90.
 Monomma, 76.
MONOMMIDÆ, 76.
 Moraecamus, 119.
 Mordella, 77.
MORDELLIDÆ, 77.
 Morio, 9.
MORIONINÆ, 9.
 Morphosphaera, 88.
 Mycteis, 123.
 Myllaena, 23.
 Myllocerus, 138.

N

Nacrea, 91.
 Nancita, 91.
 Nanophyes, 141.
NANOPHYINÆ, 141.
 Nanoplaxes, 146.

Nauphaeus, 145.
 Nausibius, 30.
 Neapsis, 29.
 Necrobia, 48.
 Necrophorus, 26.
 Nematidium, 182.
 Nemopterus, 189.
 Nemostira, 76.
 Neocollyris, 4.
 Neobisnius, 22.
 Neogria, 75.
 Neohydus, 47.
 Neolanguria, 81.
 Neopharsalia, 111.
 Neopyrgops, 137.
 Neoserica, 177.
 Neptosternus, 14.
 Nericonia, 103.
 Nessiara, 123.
 Nigidius, 159.
 Niphades, 139.
 Nisotra, 92.
NITIDULIDÆ, 29.
NITIDULINÆ, 29.
 Nodostoma, 81.
 Nortia, 103.
 Noserius, 103.
NOTERINÆ, 13.
 Nothapocyrtus, 182.
 Nyctimene, 113.

O

Oberea, 119.
 Ocalemia, 106.
ODACANTHINÆ, 10.
 Odontochila, 6.
ODONTOLABINÆ, 156.
 Odontolabis, 156.
 Odosyllis, 144.
 Oedemutes, 72.
 Oides, 86.
 Olenecamptus, 113.
 Omadius, 46.
 Ommatolampus, 147.
 Omoglymmius, 16.
 Omotemnus, 147.
 Omphasus, 141.
 Oncocephala, 100.
 Onitis, 160.
 Onthophagus, 160.
 Ontobaris, 146.
 Ontocteterus, 141.
OPATRINÆ, 66.
 Ophionea, 10.
 Opilo, 46.
ORECTOCHILINÆ, 16.
 Orectochilus, 16.
 Orochlesia, 144.
 Orphebius, 181.
 Ortalia, 39.
 Orthocyrtus, 183.
ORTHOAGONINÆ, 11.
 Orthogonius, 11.
 Orychodes, 126.
 Oryctes, 170.
 Osorius, 19.

Ospilia, 145.
 Ostedes, 117.
OSTOMINÆ, 29.
 Otariomus, 110.
 Otidognathus, 147.
OTIORHYNCHINÆ, 137.
 Oxynopterus, 61.
 Oxypygus, 148.
OXYTELINÆ, 17.
 Oxytelus, 18, 180.
 Ozomena, 92.
 Ozopemon, 152.
 Ozotomerus, 124.

P

Pachnephorus, 85.
 Pachycorynus, 21.
 Pachymerus, 79.
 Pachyparnus, 40.
 Pachypeza, 116.
PACHYRRHYNCHINÆ, 127.
 Pachyrrhynchus, 127.
 Paederus, 19.
 Paepalosomus, 139.
 Pagellia, 82.
 Pagiophloeus, 139.
 Palaminus, 19.
 Paralelostethus, 65.
 Parandra, 102.
 Parastasia, 175.
 Parimera, 141.
 Parmaschema, 33.
 Paromalus, 28.
PASSALIDÆ, 154.
 Passandra, 30.
PAUSSIDÆ, 25.
PAXILLINÆ, 155.
 Paxilloides, 155.
 Pediris, 70.
 Pelargoderus, 109.
 Pelops, 155.
 Pempherus, 145.
 Pericalus, 11.
 Perigona, 10.
 Perissus, 107.
 Petalophora, 182.
PHAEDERINÆ, 19.
 Phaedimus, 162.
 Phaedroides, 82.
 Phaenochilus, 38.
 Phaenomerus, 149.
 Phaeochrotes, 123.
 Phaeochrous, 161.
 Pharsalia, 110.
 Phaulimia, 123.
 Pheropsophus, 11.
 Philanthaxia, 55.
 Phloeobius, 124.
 Philonthus, 22, 180.
PHLOETRUPINÆ, 153.
 Phrixia, 50.
 Phylloreta, 93.
 Physodera, 10.
 Phytorus, 85.
 Phytoscapus, 138.
 Pinophilus, 19, 181.

Piperius, 152.
 Plaesius, 26.
 Plagiodera, 86.
 Plagiusa, 181.
 Planodes, 110.
 Plastus, 17.
 Platolenes, 73.
 Platycrepis, 72.
 Platyedema, 68.
 Platylister, 26.
 Platynaspis, 38.
 Platinctes, 14.
PLATYNINÆ, 9.
 Platynus, 9.
PLATYPODIDÆ, 154.
 Platypria, 102.
 Platypus, 154.
 Platsoma, 27.
 Platystethus, 18.
 Platyxantha, 92.
 Electrone, 163.
 Plintheria, 122.
 Plocaederus, 104.
 Plocia, 116.
 Poecilophana, 168.
 Polycatus, 137.
 Polycetis, 51.
POLYPHAGA, 17.
 Polyphida, 108.
 Popillia, 175.
 Poropterus, 143.
 Poteriphorus, 148.
 Pothyne, 116.
 Praonetha, 114.
 Prinocerus, 44.
 Priochirus, 17.
PRIONINÆ, 102.
PRIONOMERINÆ, 141.
 Prioptera, 95.
 Pristilophus, 65.
 Prodiocetes, 147.
 Promecotheca, 100.
 Prophthalmus, 125.
 Prosoplus, 115.
 Prosopocoilus, 157.
 Protaetia, 165.
 Proteuclea, 114.
 Prothema, 106.
 Prothyma, 6.
 Protocerus, 147.
 Protopaussus, 25.
 Psammoeus, 30.
PSELAPHIDÆ, 24.
 Psephus, 61.
 Pseudabax, 72.
 Pseudapocrytus, 131.
 Pseudeumolpus, 72.
 Pseudobothideres, 182.
 Pseudocophora, 88.
 Pseudohomonyx, 169.
 Pseudomalaia, 174.
 Pseudostrogylum, 74.
 Psilomerus, 107.
 Psilopholis, 179.
 Psyllodes, 93.
 Pteroptix, 43.

Pterostichus, 9.
 Ptilopodius, 151.
PTINIDÆ, 49.
PTININÆ, 49.
 Ptinus, 49.
 Ptosima, 51.
 Pullus, 39.
 Pycnomerus, 182.
 Pyrgops, 137.
 Pyrophanes, 44.

R

Raphitreus, 25.
 Regimbartia, 40.
 Reichenbachia, 24.
 Rhabdocnemis, 149.
 Rhantaticus, 15.
 Rhaphidepalpa, 87.
 Rhaphipodus, 103.
 Rhaphuma, 107.
 Rhinacosmus, 168.
 Rhinoplia, 171.
RHIPIDOCERIDÆ, 41.
RHIPIPHORIDÆ, 77.
RHOPALOCERINÆ, 182.
 Rhopalocerophanus, 182.
 Rhynchites, 140.
RHYNCHITINÆ, 140.
 Rhynchophorus, 147.
 Rhyncolus, 150.
 Rhyparus, 161.
 Rhyparida, 83.
 Rhysodes, 16.
RHYSODIDÆ, 16.
RHYSOPAUSINÆ, 73.
 Rodolia, 39.
 Rondibilis, 117.
RUTELINÆ, 171.
 Rybaxis, 25.

S

Sambus, 56.
 Sandracottus, 15.
 Santalus, 28.
 Saprinus, 28.
SCAPHIDIIDÆ, 26.
 Scaphidium, 26.
 Scaphosoma, 26.
SCARABAEIDÆ, 159.
 Scarites, 8.
SCARITINÆ, 8.
 Scelerocyrtus, 133.
 Scelodonta, 82.
 Schönherria, 180.
 Sclerolips, 144.
 Scleron, 67.
 Sclethrus, 108.
 Scopaeus, 20.
 Scotaeus, 71.
SCYDMAENIDÆ, 25.
 Scymnus, 39.
 Sebaethe, 93.
 Semnodema, 58.
 Serangium, 38.
 Sermlylodes, 91.
 Serixia, 117.

Setenis, 70.
 Silpha, 25.
SILPHIDÆ, 25.
 Silusa, 181.
 Silvanopsis, 30.
 Silvanus, 30.
 Simodactylus, 61.
 Sinoxylon, 50.
 Sintor, 122.
SIPALINÆ, 150.
 Sipalus, 150.
 Sitodrepa, 48.
 Somaphorus, 29.
 Spathomeles, 34.
 Spenocorynus, 148.
SPHAERIDIINÆ, 41.
 Sphaeroderma, 93.
 Sphaerometopa, 93.
 Sphaerotrypes, 151.
 Sphenomorphoidea, 133.
 Sphenophorus, 149.
 Spilota, 173.
 Spilovalgus, 169.
STAPHYLINIDÆ, 17.
STAPHYLININÆ, 21.
 Staphylinus, 23.
STATIRINÆ, 75.
STENINÆ, 19.
 Stenodastus, 81.
 Stenoplatys, 92.
 Stenotarsoidea, 35.
STENOSINÆ, 66.
 Stenus, 19.
 Stephanoderes, 151.
 Stephanopholis, 178.
 Stephanorhopalus, 151.
 Stereonychus, 142.
 Sternolophus, 41.
 Stethorus, 39.
 Stenotarsoidea, 35.
 Sthenias, 116.
 Sticholotis, 38.
 Stigmatium, 46.
 Straboscopus, 123.
 Strobiderus, 91.
 Stromatium, 105.
STRONGYLINÆ, 74.
 Strongylium, 74.
 Styanax, 138.
 Sutura, 93.
 Sybra, 116.

Sympaector, 123.
 Synarmostes, 161.
 Synia, 38.
 Synonycha, 36.
 Synophthalmus, 139.
 Systolocranius, 10.

T
 Tagalus, 68.
 Tanygnathinus, 23.
 Tarsostenus, 48.
TELEPHORIDÆ, 44.
 Temnaspis, 81.
TEMNOCHILIDÆ, 29.
TEMNOCHILINÆ, 29.
 Tenebrio, 71.
TENEBRIONIDÆ, 66.
TENEBRIONINÆ, 70.
 Tenebroides, 29.
 Tenerus, 47.
 Terminalinus, 153.
 Tetraglenes, 117.
 Thaneroclerus, 47.
 Thaumastopeus, 163.
 Thea, 85.
 Thelgetrum, 35.
 Theogama, 146.
 Therates, 6.
 Thesiastes, 24.
 Thlibops, 9.
 Thoracochirus, 17.
 Thoracophorus, 18.
 Thyreocephalus, 21.
THYREOPTERINÆ, 10.
 Tillus, 45.
 Toxicum, 71.
 Toxoscelus, 56.
 Trachycyrtus, 135.
 Trachypolis, 33.
 Trachys, 58.
 Tragopus, 143.
 Triacanus, 29.
 Tribalus, 28.
 Tribolium, 69.
 Trichalus, 42.
 Trichochrysea, 83.
 Trichogomphus, 170.
 Trichostigmus, 155.
 Tricondyla, 4.
 Trictenotoma, 79.
TRICTENOTOMIDÆ, 79.

Trigonotoma, 9.
TRINGONOTOMINÆ, 9.
 Triplatoma, 32.
 Triplogenus, 9.
TROCHOIDEINÆ, 33.
 Trochoideus, 33.
TROGINÆ, 165.
 Trogophloeus, 18.
 Trox, 162.
 Trypanaeus, 26.
TRYPEDINÆ, 146.
 Trypeticus, 26.
 Tychiodes, 150.
 Tychosoma, 150.
 Tylocerus, 44.
 Tyraphus, 25.

U

Uloma, 69.
ULOMINÆ, 68.

V

VELLEJINÆ, 155.
 Verania, 37.
 Vesta, 42.

W

Webbia, 151.
WEBBINÆ, 151.

X

Xenocerus, 123.
 Xuthia, 181.
 Xyaste, 117.
 Xyleborus, 153.
 Xylinaes, 124.
 Xylipsocus, 50.
XYLOPHILIDÆ, 77.
 Xylophilus, 78.
 Xylorrhiza, 116.
 Xyloteles, 109.
 Xylotrips, 50.
 Xylotrechus, 107.
 Xylotrupes, 170.
 Xystrocera, 103.

Z

Zena, 146.
 Zonitis, 77.
 Zooblast, 102.
ZYGOPINÆ, 144.
 Zyrras, 23.

THE PHILIPPINE JOURNAL OF SCIENCE

D. GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

VOL. XI

MAY, 1916

No. 3

NEUROPTEROID INSECTS OF THE PHILIPPINE ISLANDS

By NATHAN BANKS
(*Washington, D. C.*)

TWO PLATES

A few years ago not a dozen species of neuropteroid insects were known from the Philippines. A few were collected by Semper and described by Brauer, and Navas and Weele have added two or three.

In the past few years Prof. Charles Fuller Baker has sent me specimens representing about seventy-five species of insects of these orders. In a preliminary report¹ I described a number of new species and recorded others. Professor Baker has desired that a synopsis be published in the Philippines to encourage local students, and the following is presented, although I recognize that it does not cover one third, probably not one fifth, of the species to be found in the Philippines. Nearly all the material is from Los Baños, Laguna Province, Luzon, or from near-by territory.

In the generic tables I have included some genera not yet recorded from the Philippine Islands, which from their known distribution may be expected to occur there, but doubtless unexpected as well as new genera will be found in future collections.

The Odonata, or dragon flies, are not included in this paper. The only island in Insulinde whose neuropteroid fauna is at all well known is Java. It differs from that of the Philippines in the presence of Megaloptera and Mecoptera, and even if these

¹ *Proc. Ent. Soc. Washington* (1913), 15, 170-180.

are later discovered in the Philippines, they certainly are not as common as in Java. The species known also from Java are such as are also known from Celebes, or generally distributed in Malasia. There is nothing to indicate any relation to the true Australian fauna; in fact, nearly all the genera are well known in India or southeastern Asia. There is no trace of the genera that ally India and Ceylon to Africa. Many of the psocid genera are known also from Borneo.

Key to the orders.

- a*¹. Wings with a nodus, or strong cross vein near middle of costa, interrupting the venation; wings densely net-veined; no palpi, antennæ very small..... Odonata.
- a*². No nodus present.
 - b*¹. Tarsi five-jointed.
 - c*¹. Hind wings with a folded anal area; antennæ never capitate.
 - d*¹. Mandibles and maxillæ imperfect; wings with few cross veins; pronotum small; wings plainly hairy..... Trichoptera.
 - d*². Mandibles and maxillæ developed; wings not hairy and with many cross veins; pronotum prominent..... Megaloptera.
 - c*². Hind wings without a folded anal area; wings not noticeably hairy; mouth parts well developed.
 - e*¹. Head prolonged in beak beneath; pronotum small; wings with few cross veins..... Mecoptera.
 - e*². Head not so prolonged; pronotum distinct; usually many cross veins in wings..... Neuroptera.
 - b*². Tarsi with fewer than five joints.
 - f*¹. Antennæ minute; abdomen with long terminal setæ; fore wings much larger than hind wings..... Anisoptera.
 - f*². Antennæ long.
 - g*¹. Tarsi with four joints; only costal venation distinct, setæ very short Isoptera.
 - g*². Tarsi two- or three-jointed; venation developed all over wing.
 - h*¹. No terminal setæ; pronotum small; wings with few veins; no folded anal area to hind wings..... Corrodentia.
 - h*². With terminal setæ to abdomen; pronotum distinct; a folded anal area to hind wings..... Plecoptera.

ISOPTERA

Key to the families.

- a*¹. Tarsi of three joints, basal joint of front tarsi swollen; pronotum with a transverse suture..... Embidæ.
- a*². Tarsi of four joints, basal joint not swollen; no transverse suture to pronotum Termitidæ.

TERMITIDÆ

Several species of white ants have been recorded from the Islands, and doubtless twenty or thirty occur; the only one received is a large dark-winged male *Termes*. Six new species

of Philippine termites collected by Baker, and one new species collected in Manila by Mr. P. Kanehira, government forester of Formosa, have been described by Oshima.²

EMBIIDÆ

Oligotoma saundersi Westwood.

The only species of this family so far received is *Oligotoma saundersi* Westwood. Two specimens from Mount Maquiling, Luzon. It is a brownish species with pale streaks in the wings. It is widely distributed and extends to India, Africa, and Australia.

CORRODENTIA

This order includes the family Psocidæ, or bark lice. Numerous genera have been described or recorded from the Malay region by Enderlein. Those known from the Islands may be tabulated as follows:

PSOCIDÆ

Key to the genera.

- a*¹. Wings more or less net-veined beyond the middle; head very broad.
Calopsocus.
- a*². Wings not net-veined.
 - b*¹. Wings acute at tips and clothed with scalelike hairs.... Amphientomum.
 - b*². Wings without scalelike hairs.
 - c*¹. A closed discal cell.
 - d*¹. Stigma very long and slender..... Tæniostigma.
 - d*². Stigma normal.
 - e*¹. Tarsi three-jointed; wings more or less densely dotted with brown Myopsocus.
 - e*². Tarsi two-jointed; wings not dotted with brown.
 - f*¹. Radius and median united for at least one point..... Psocus.
 - f*². Radius and median not united; connected by a cross vein.
Amphigerontia.
 - c*². No closed discal cell.
 - g*¹. Stigma with a short spur behind..... Amphipsocus.
 - g*². Stigma without a spur.
 - h*¹. Radius and median vein not united, but connected by a cross vein; stigma and areola postica elongate..... Epipsocus.
 - h*². Radius and median united at least at one point.
 - i*¹. Stigma very long, like *Tæniostigma*..... Tagalopsocus.
 - i*². Stigma of moderate length.
 - j*¹. Areola postica very high..... Kolbea.
 - j*². Areola postica moderate.
 - k*¹. Basal joints of antennæ elongate and enlarged; venation aberrant Dyspsocus.
 - k*². Basal joints of antennæ neither elongate nor enlarged.
Cæcilus.

² *Annot. Zool. Japon.* (1914), 8.

Calopsocus rizali sp. nov. Plate I, figs. 1 and 2.

Yellowish; antennæ blackish, except basal joints pale, tips of palpi black; thorax unspotted; legs pale, tibiæ infuscated or nearly black. Wings uniform pale brown; venation irregular, usually the radius is not as evenly three-branched as in the figure. Venation of hind wings much like that of *C. infelix*, but the upper fork much shorter than the lower one. Antennæ with long hairs on basal parts; head broad, the vertex with a deep median indentation, the lobes higher than the eyes. Wings longer than in *C. infelix*; the area beyond the stigma bent downward.

Length to tip of wings, 4.3 millimeters.

LUZON, Tayabas, Malinao (*Baker*).

Genus *PSOCUS* Linnæus

Key to the species.

- α^1 . Stigma angulate behind; second and third posterior cells mostly pale.
bakeri.
 α^2 . Stigma rounded behind, second and third posterior cells mostly dark.
taprobanes var. luzonensis.

Psocus bakeri Banks.

Numerous specimens from Los Baños.

Psocus taprobanes var. *luzonensis* var. nov.

Agrees very closely with Enderlein's figure of variety *bengalensis*, but the fork of the radius contains only three dark dots, the basal band extends up to the radius, a pale spot at base of second posterior cell only, the white marginal spots cover the marginal vein, and between them the margin is much darker than elsewhere. The stigma is broader than he figures, but not quite angulate behind; the radial fork is much longer than he figures, being fully as far basal as the first fork of the median vein, and its pedicel is not as long as the outer side of discal cell. Head pale; nasus faintly lineate; thorax pale; all tarsi black on last joint and dark at tip of tibia.

Length to tip of wings, 6 millimeters.

LUZON, Laguna, Mount Maquiling (*Baker*).

True *P. taprobanes* is found in Java, Ceylon, and doubtless in other islands.

Amphigerontia sp.

A black-winged specimen of this genus from Mount Banahao is in too poor condition for description.

Genus MYOPSOCUS Hagerdorn

Key to the species.

- a^1 . Stigma twice as long as broad, angulate behind; larger species. enderleini.
 a^2 . Stigma not twice as long as broad; smaller species..... bakeri.

Myopsocus enderleini Banks.

Several specimens from Los Baños, Luzon, and Puerto Princesa, Palawan.

Myopsocus bakeri sp. nov. Plate I, fig. 3.

Pale yellowish, lateral lobes of mesonotum with several small dark spots; legs dark at tips of the tibiae. Wings brown, mostly pale brown on basal half, and mostly darker brown on the apical half; an oblique apical brown band over the posterior cells, its inner edge marked by three pairs of black dots; stigma mostly brown, blackish near base; areola postica brown, a blackish mark at upper side near the median; a broad, oblique, brown band across basal part of wing, its edges with a few black dots; dark clouds elsewhere on wing, so that only small spaces are pale; the brown guttated in appearance, the margin of wing alternately brown and hyaline. The wing seen from side view is strongly undulate on upper (hind) margin. Hind wing slightly darkened at tip, venation dark; upper branch of fork reaching nearly to tip of wing.

Length to tip of wings, 4 millimeters.

LUZON, Laguna, Mount Maquiling (*Baker*).

Tæniostigma bimaculata Banks.

From Los Baños and Mount Maquiling, Luzon, and Puerto Princesa, Palawan.

Genus EPIPSOCUS Hagerdorn

Key to the species.

- a^1 . Wings unmarked inornatus.
 a^2 . Wings with several brown clouds..... completus.

Eipsocus inornatus sp. nov. Plate I, fig. 4.

Body, legs, and antennæ pale yellowish; wings also faintly, uniformly yellowish and with a uniform yellowish venation, no dots on the veins, nor any marks on the wings; fore wings very long and slender, more so than in *E. marginatus* Enderl., barely wider in stigmal area; pterostigma long and slender and tapering

toward tip; areola postica long and tapering toward tip; forking of radial vein but little beyond the first forking of median vein; cross vein between radius and medius oblique and fully as long as width of the stigma.

Length to tip of wings, 3.8 millimeters.

LUZON, Laguna, Mount Maquiling (*Baker*). Two specimens.

Epipsocus completus sp. nov. Plate I, fig. 5.

Yellowish, nasus rather darker; head narrow, eyes rather large; antennæ yellowish; thorax unspotted; legs pale. Wings hyaline, marked with brown; a broad band before middle, one at about middle across stigma rather obliquely to the areola postica, its outer margin distinct; areola postica mostly dark, and thence along outer margin a broad dark area, leaving a pale spot in base of second median fork; the radial fork with only a band across it and a dot at base. Stigma long; areola postica long. In hind wings the upper branch of first fork a long distance before tip, but oblique.

Length to tip of wings, 3.8 millimeters.

LUZON, Laguna, Mount Maquiling (*Baker*). Apparently related to *E. marginatus* Enderlein, but the markings more extensive, and the venation of the hind wing different.

Genus AMPHIPSOCUS McLachlan

Key to the species.

- α^1 . Radius and median united at one point; wings clear..... unitus.
 α^2 . Radius and median not united, but connected by a cross vein; wings smoky connexus.

Amphipsocus connexus sp. nov. Plate I, fig. 6.

Clypeus, nasus, and vertex black, sides of face pale; antennæ black, basal joints pale; thorax almost entirely black above, pleura pale; legs pale, tibiæ blackish. Wings smoky, venation blackish, stigma red, and the red extending back over the spur. Wings not very long; stigma large, angulate, and with a long spur behind; median and radius connected by a cross vein, not united; radial fork about one-half way between the forks of the median; areola postica subtriangular and moderately high. In hind wings the upper branch of the first fork ends near tip of the wing. Eyes small, but near to the top of the vertex.

Length to tip of wings, 4 millimeters.

MINDANAO, Butuan (*Baker*).

Amphipsocus unitus sp. nov. Plate I, fig. 7.

Pale yellowish, ocelli on a black dot; antennæ pale, legs very pale. Wings hyaline; stigma pink; venation yellowish, basal part of radius to the median vein dark. Stigma large, angulate behind and with a minute spur; radius and median united at one point; fork of radius nearer to the first than to the second fork of the median; areola postica nearly as high as long. In hind wings the upper branch of the first fork reaches to near the tip of the wing. Eyes small, not nearly as high up as the vertex.

Length to tip of wings, 4.6 millimeters.

LUZON, Laguna, Mount Maquiling (*Baker*).

Genus TAGALOPSOCUS novum

Related to *Cæcilius*, but distinguished by the long stigma, very similar in this respect to *Tæniostigma*; venation with very short bristles. In hind wings the first fork has its upper side nearly to tip of wing, not directed upward. Tarsi two-jointed.

Tagalopsocus luzonensis sp. nov. Plate I, figs. 9 and 10.

Black; two large pale spots on front between antennæ, separated by a narrow black line; vertex pale on each side; antennæ wholly pale; pubescence rather short. Thorax jet black, leaving only a pale median depressed spot. Legs very pale yellowish, almost white. Wings hyaline, long, almost acute at tips; stigma reddish, very long and slender; venation yellowish, some veins near the tip darker; median and radius united at one point; radial fork opposite first fork of the median, areola postica rather high, but evenly rounded.

Length to tip of wings, 6.2 millimeters.

LUZON, Laguna, Mount Maquiling (*Baker*).

Kolbea bakeri sp. nov. Plate I, fig. 8.

Pale yellowish; clypeus large, blackish; nasus dull black, with a narrow median black stripe running up on the vertex; eyes very small; antennæ blackish, the basal joints yellowish; mesonotum with three black patches, one in front and one on each side; legs yellowish, the tibiæ, especially the hind tibiæ, dark. Wings hyaline; stigma reddish; venation dark; veins with rather short bristles; stigma rounded behind; radius and median vein united at one point; areola postica very high.

Length to tip of wings, 4.1 millimeters.

LUZON, Laguna, Mount Maquiling (*Baker*).

In appearance this species is very similar to *Amphipsocus unitus*, but the latter has no distinct marks on head, and the stigma has the posterior spur.

Genus *CÆCILIUS* Curtis

Key to the species.

- a*¹. Veins with dark dots and several brown clouds..... *guttulatus*.
*a*². Veins without dark dots.
 *b*¹. Radial fork arises before first fork of the cubitus; faint dark marks at stigma and ends of veins..... *inæqualis*.
 *b*². Radial fork arises beyond first fork of the cubitus; wing unmarked *castellus*.

Cæcilius castellus sp. nov. Plate II, fig. 11.

Pale yellow; mid lobe of mesonotum brown; legs and antennæ very pale. Wings long and slender, faintly yellowish, more distinctly so in costal half; venation pale, but apical forks dark; stigma long and slender; radius and median united at one point, fork of radius about halfway between the forks of the median; areola postica very small and much longer than high. In hind wings upper branch of the fork vertical to the anterior margin and nearer to the other fork than to the tip of the wing.

Length to tip of wings, 2.8 millimeters.

LUZON, Laguna, Los Baños (*Baker*). Two specimens.

Cæcilius guttulatus sp. nov. Plate II, fig. 12.

Grayish; nasus faintly lineate with reddish; vertex with four reddish spots; antennæ rather dark, the short joints beyond middle dark, but with snow-white apices; thorax with several rufous spots; legs pale, tibiæ with dark tips, tarsi dark. Wings hyaline, rather short; venation as figured; venation pale, with prominent dark dots on all except anal vein; dark clouds at ends of veins; stigma short, rather suddenly truncate, mostly occupied by dark clouds, one of them continued back to radial sector, and another above areola postica; a small dark cloud above cubitus, and two others toward base of wings. Hind wings hyaline, with brown venation. Head broad; eyes small.

Length to tip of wings, 2.9 millimeters.

LUZON, Laguna, Mount Maquililing (*Baker*).

Cæcilius inæqualis sp. nov. Plate II, fig. 13.

Pale yellowish; basal joints of antennæ reddish. Wings hyaline, venation pale, but dark and with a narrow dark margin near tip, an apical brown cloud in the stigma, and a spot at end of anal vein. Wings rather slender; stigma long, slender,

evenly rounded behind; radius and median united for a short distance; the radius forks a little before the first fork of the median, the forks of the latter being unusually short; areola postica long, highest toward base. In hind wing the upper branch of the first fork is a long distance from tip and vertical.

Length to tip of wings, 2.3 millimeters.

LUZON, Laguna, Mount Maquiling (*Baker*). This species is peculiar on account of the short median forks.

Dypsocus apicatus sp. nov. Plate II, figs. 14 and 15.

Black; antennæ from the fourth joint outward pale yellowish; fore wings a little pale at areola postica, elsewhere black, and through the middle area the surface transversely, rugosely waved; apical part and stigma swollen and polished; head and thorax with minute scattered whitish hairs; second joint of antennæ long, heavy, and plainly curved, longer than the third.

Length to tip of wings, 4 millimeters.

PALAWAN, Puerto Princesa (*Baker*). This species is related to *D. coleoptratus* Hag., but the proportions in the venation and basal joints of the antennæ are different.

PLECOPTERA

This order includes the Pelidæ, or stone flies; the species so far received all belong to *Neoperla*, or *Ochtepetina* as it is called by some authors.

Genus *NEOPERLA* Needham

Key to the species.

- a*¹. Cross vein up from radial sector to the radius extending obliquely backward *obliquus*.
*a*². This cross vein straight across.
 *b*¹. Pale yellowish; ocelli of moderate size..... *clarissa*.
 *b*². Brownish yellow; ocelli very large..... *recta*.

Neoperla obliquus Banks.

From Mount Maquiling and Los Baños. A large yellowish brown species, the legs and setæ pale yellow, the antennæ brown.

Neoperla recta Banks.

Numerous specimens from Mount Maquiling and Los Baños. In general appearance this species is very similar to *N. obliquus*.

Neoperla clarissa Banks.

Specimens from Mount Maquiling and Los Baños. A smaller and more yellow species than the others.

Only three specimens have been received; these belong to the genera *Thraulius* and *Thalerosphyrus*; one of them appears to be *Thalerosphyrus torridus* Walker, described very briefly from the Philippines.

MEGALOPTERA

No species of this order has yet been recorded from the Islands, but probably one or more species of *Hermes* and *Chauliodes* will eventually be found, since they are known from several islands in Malasia.

NEUROPTERA

Key to the families.

- α^1 . Front legs enlarged, raptorial; ocelli present, pronotum long. Mantispidæ.
- α^1 . Front legs not enlarged.
- b^1 . Minute species, with farinose wings having few veins. Coniopterygidæ.
- b^1 . Moderate to large; wings not farinose.
- c^1 . Antennæ short, enlarged at tip..... Myrmeleonidæ.
- c^1 . Antennæ long.
- d^1 . Antennæ capitate..... Ascalaphidæ.
- d^1 . Antennæ not capitate.
- e^1 . Greenish species; margin of wing without a dot between veins. Chrysopidæ.
- e^1 . More or less brownish; margin of wings with a dark dot or short line intercalate between ends of veins..... Hemerobiidæ.

HEMEROBIIDÆ

Key to the genera.

- α^1 . But one radial sector.
- α^1 . At least two radial sectors.
- b^1 . Practically no cross veins beyond the middle of wings, small species. Sisyra.
- b^1 . Many cross veins; ocelli present; both median and cubital veins forked near base..... Spilosmylus.
- c^1 . Fore wings at base without a recurrent vein; two series of gradates. Micromus.
- c^1 . Fore wings broad at base and with a recurrent vein.
- d^1 . Outer and inner gradates present..... Hemerobius.
- d^1 . Only one series of gradates present.
- e^1 . No outer series of gradates..... Notiobiella.
- e^1 . No inner series of gradates..... Sympherobius.

Spilosmylus modestus Gerst.

One from Mount Maquiling. Previously known from Java.

Sisyra bakeri Banks.

Several from Los Baños and Mount Maquiling. A small, shiny, brown-winged species.

Micromus pusillus Banks.

From Los Baños, Mount Maquiling, and Mount Banahao. Previously recorded from Java.

Notiobiella affinis Banks.

From Manila, Luzon, and Baguio, Benguet.

CHRYSOPIDÆ

Key to the genera.

- α^1 . Third cubital cell not divided; between radial sector and median vein is a complete series of connecting veinlets forming a false vein and extending out to the gradates..... *Apochrysa*.
- α^2 . Third cubital cell divided; no such false vein.
 - b^1 . Third cubital cell divided longitudinally..... *Nothochrysa*.
 - b^2 . Third cubital cell divided obliquely, so that the divisory veinlet ends on the upper side of the cell.
 - c^1 . Costal area of fore wings very broad at base..... *Ancylopteryx*.
 - c^2 . Costal area of fore wings very narrow at base..... *Chrysopa*.

Apochrysa bellula Banks.

Only the type from Los Baños. A large, densely veined species, with a dark spot at the upper end of the inner gradate series in the fore wings.

Genus *NOTHOCHRYSA* McLachlan

The two Philippine species of this genus have the antennæ black, except the basal joints.

Key to the species.

- α^1 . Pronotum margined with dark; some cross veins in basal middle space of fore wings dark..... *evanescens*.
- α^1 . Pronotum not margined; cross veins pale..... *æqualis*.

Nothochrysa æqualis Walker.

Two from Los Baños.

Nothochrysa evanescens McLachlan.

One from Los Baños.

Genus *CHRYSOPA* Leach

Key to the species.

- α^1 . Wings with some dark clouds..... *faceta*.
- α^1 . Wings without clouds.
 - b^1 . Second joint of antennæ dark, a dark median spot on face below antennæ *azygota*.
 - b^1 . Second joint of antennæ pale.
 - c^1 . Venation partly dark; gradates dark..... *ilota*.
 - c^2 . Venation, including gradates, pale.
 - d^1 . Gradates divergent; inner series at upper end very close to the radial sector..... *tagalica*.
 - d^2 . Gradates subparallel.

- e*¹. Inner gradates few (3 or 4), each much more than its length from the next one; divisory veinlet ends beyond the cross vein *isolata*.
*e*². Inner gradates (6 or 7) scarcely their length apart; divisory veinlet ends before the cross vein..... *morota*.

Chrysopa faceta Navas.

Described from Luzon; I have one specimen from Mount Maquiling.

Chrysopa isolata Banks.

Two from Mount Maquiling.

Chrysopa morota Banks.

From Mount Maquiling and Los Baños.

Chrysopa tagalica Banks.

Two from Los Baños.

Chrysopa ilota Banks.

Two from Mount Maquiling.

Chrysopa azygota Banks.

One from Mount Maquiling.

Ancylopteryx 8-punctata Fabricius.

From Los Baños. The wings have several dark dots. Widely distributed in Malasia.

Ancylopteryx doleschalli Brauer.

From Los Baños, Luzon, and Puerto Princesa, Palawan. With spots in wing much larger than in the other species. Known from Celebes and Amboina.

MANTISPIDÆ

Key to the genera and species.

- a*¹. Radial sector with at least ten or more branches; costal fourth of wings brown, large species..... *Euclimacia tagalensis* Banks.
*a*². Radial sector with from five to eight branches.
*b*¹. In hind wings the cubital vein connected to anal by a cross vein; a dark streak in tips of wings..... *Climaciella luzonica* Weele.
*b*². In hind wings the cubitus bent down to touch the anal vein; no dark streaks in tips of wing.
*c*¹. Femora and tibiæ with dark bands near the middle; stigma short, triangular *Mantispa manca* Gerst.
*c*². Femora and tibiæ without median bands; stigma normally elongate.
*d*¹. Antennæ with a pale annulus before tip.
Mantispa annulicornis Gerst.

*d*². Antennæ without a pale annulus toward tip.

*e*¹. Costa and radius pale yellow..... *Mantispa enderleini* Banks.

*e*². Costa and radius dark or black..... *Mantispa luzonensis* Navas.

Euclimacia tagalensis Banks.

One, the type, from Los Baños.

Climaciella luzonica Weele.

Several from Los Baños and Mount Banahao.

Mantispa manca Gerst.

Two from Mount Maquiling; widely distributed in Insulinde.

Mantispa annulicornis Gerst.

From Mount Maquiling and Mount Banahao; also known from various Malasian islands.

Mantispa luzonensis Navas.

Various specimens from Los Baños, Mount Maquiling, and Mount Banahao.

Mantispa enderleini Banks.

From Los Baños; Mount Maquiling; Butuan, Mindanao; and Puerto Princesa, Palawan.

ASCALAPHIDÆ

Key to the genera.

Three genera are known to occur in the Islands, and the distribution of *Hybris* is such that it may also be present.

*a*¹. Between cubitus and hind margin in hind wing not more than three rows of cells; veins beyond end of anal not plainly branches of cubitus.

*b*¹. Pterostigma short, about as high as long..... *Suhpalasca*.

*b*². Pterostigma plainly longer than high..... *Suphalomitus*.

*a*². Between cubitus and hind margin in hind wing more than three rows of cells; some veins beyond end of anal apparently branches of cubitus.

*c*¹. Wing tips acute; male appendages elongate..... *Hybris*.

*c*². Wing tips rounded; male appendages very short..... *Protacheron*.

Suhpalasca princeps Gerst.

One from Los Baños; described from Java. The tips of the wings are blackish.

Suphalomitus malayanus McLachlan

Recorded from Basilan (*Doherty coll.*). Wings hyaline, tips barely darker. Known also from Celebes and Java.

Protacheron philippinensis Weele.

Described from Florida Blanca Mountains, Luzon, and since recorded from Celebes and Java. The male with hyaline wings, in female the hind wings are dark near the outer hind margin.

MYRMELEONIDÆ

Key to the genera.

- a*¹. In fore wing the second and third anal veins are separate, but connected by a cross vein; a line in apex of the wing.
- b*¹. Legs and spurs very long and slender; wings not excised nor sinuated on the outer margin; first tarsal joint about as long as the last.
 - Dendroleon.
- b*¹. Legs and spurs shorter; first tarsal joint shorter than the last; wings more or less excised on the outer margin..... Episalus.
- a*². In fore wing the second and third anal veins are united for at least one point.
 - c*¹. One cross vein before origin of radial sector in the hind wing.
 - d*¹. In fore wing the anal runs parallel to the cubitus for a long distance; first tarsal joint very long..... Protoplectron.
 - d*¹. Anal diverges from cubitus.
 - e*¹. Legs rather short and stout; spurs about equal to three or four tarsal joints..... Distoleon.
 - e*¹. Legs very slender; the tibia about as long as femur.
 - f*¹. Radial sector in fore wing arises much before the cubital fork; spurs as long as three or four joints..... Acratoleon.
 - f*¹. Radial sector arises much beyond the cubital fork; spurs shorter; claws very long..... Paraglenurus.
 - c*². Three or more cross veins before origin of radial sector in the hind wing.
 - g*¹. Legs short and stout; spurs bent; body very hairy.... Acanthaclisis.
 - g*¹. Legs more slender and less hairy; spurs only slightly curved.
 - h*¹. Wings very broad at stigma; a series of connecting veinlets before stigma in fore wing..... Hagenomyia.
 - h*¹. Wings more slender, no such series of connecting veinlets.
 - Myrmeleon.

Dendroleon sanchezi Navas.

Described from Luzon, under the name *Delgadus*. I have not seen it.

Genus MYRMELEON Linnæus

The two species so far received may be distinguished as follows:

Key to the species.

- a*¹. Vertex all black..... celebesensis.
- a*². Vertex with two pale spots..... angustipennis.

Myrmeleon angustipennis sp. nov. Plate II, fig. 16.

Practically only a form or variety of *M. tenuipennis* Rbr.,

but differs in that the dark stripe on the pronotum is as broad in front of the transverse groove as behind it.

Head mostly black; lower sides of face, clypeus, orbital line, and two submedian spots on the vertex pale yellowish; basal joint of antennæ also pale; spots on vertex sometimes connected. Pronotum with a broad dark median stripe, the anterior part as broad as the posterior, the anterior part with a pale median line. Legs mostly pale, hind femora with a preapical dark band. Abdomen dark, with pale pubescence. Wings hyaline, unmarked, venation pale, with minute dark dots; wings as slender as in *M. tenuipennis*, the tips acute; twelve branches to the radial sector; seven cross veins before radial sector in fore wing, four in the hind wing; in fore wing the radial sector arising just beyond the cubital fork; two cross veins between cubital fork and anal; one cross vein in hind wing; in the fore wing a few costals before the stigma forked.

Expanse, 52 millimeters.

LUZON, Laguna, Los Baños and Mount Maquiling (*Baker*). Very close to *M. tenuipennis*, which I have from northern India and Ceylon. *Myrmeleon freyeri* Navas is a synonym of *M. tenuipennis*.

Myrmeleon celebesensis McLachlan.

One from Mount Maquiling. *Myrmeleon capito* Navas from Borneo is the same species, and both are probably synonyms of *M. solers* Walker from China.

Genus DISTOLEON Banks

Distoleon will replace *Formicaleo* as used by most authors. *Formicaleo* was originally applied only to the type species of *Myrmeleon* and so is a synonym of it. *Formicaleon* Banks is a synonym of *Distoleon*.

Key to the species.

- α^1 . In fore wing the branches of cubitus bent to form a line.
 - b^1 . The line only one row of cells behind the cubitus.....*disjunctus*.
 - b^2 . The line three to five cells behind the cubitus..... *bakeri*.
- α^2 . In fore wing the branches, although somewhat bent, not forming a line *cleonice*.

Distoleon bakeri sp. nov. Plate II, fig. 17.

Face pale; dark spot between antennæ, reaching narrowly below and broadly above; vertex with an anterior, double curved dark band, and behind curved marks which inclose two pale submedian spots. Antennæ dark, with pale annuli. Pronotum dark, traces of a pale median line, and a curved pale mark each

side in front; median lobe of mesothorax with a median line and the hind border pale. Abdomen dark, with a pale median spot near middle of several segments. Legs rather dark, paler on base or above, spots and dots on the tibiae, tarsal joints dark at tips. Wings hyaline, stigma and spot at end of cubitus dark, and in the fore wings a dark dot at end of anal. Venation dark, subcosta and radius with pale streaks, and some other veins with pale markings. Wings of moderate length, acute at tips; in fore wing a line between branches of cubitus but situated four or five cells behind the upper cubitus; in hind wing only two rows of cells behind the cubitus; in fore wing eight cross veins before the radial sector; latter with ten branches; in fore wings seven cross veins between anal and cubital fork, only one such cross vein in the hind wing.

Expanse, 54 millimeters.

PALAWAN, Puerto Princesa (*Baker*).

Distoleon cleonice Banks.

From Los Baños.

Distoleon disjunctus Banks.

From Los Baños and Mount Maquiling.

CONIOPTERYGIDÆ

No species of this family is yet recorded from the Philippine Islands.

MECOPTERA

No species of this order has been taken in the Philippine Islands.

TRICHOPTERA

Key to the families.

- α^1 . Palpi with the last joint slender, flexible, or multiarticulate.
 - b^1 . Not more than three apical forks in the fore wings; a few bristles on the thorax among the hairs..... *Leptoceridæ*
 - b^2 . Four or five apical forks in fore wings; no bristles on thoracic notum.
..... *Hydropsychidæ*.
- α^2 . Palpi with last joint shorter, entire, not flexible.
 - c^1 . Minute species; wings slender and acute; hairs mostly erect; few veins in wings..... *Hydroptilidæ*.
 - c^2 . Size moderate; wings normal.
 - d^1 . Ocelli present..... *Chimarra*.
 - d^2 . Ocelli absent.
 - e^1 . A closed median cell behind the discal cell in the fore wings; fork 4 present..... *Calamoceratidæ*.
 - e^2 . No closed median cell; fork 4 absent..... *Sericostomatidæ*.

SERICOSTOMATIDÆ

Key to the genera.

- a*¹. Forks 1, 2, 3, 5 present in both wings; discal cell in hind wings open; male palpi not upcurved and heavily haired or scaled..... *Goera*.
*a*². Forks 1, 2, 3, 5 not all present in both wings; discal cell in hind wings open.
*b*¹. Fore wings very broad; basal joint of male antennæ without processes. *Neolepidostoma*.
*b*². Fore wings rather slender; basal joint of male antennæ with processes above *Dinarthodes*.

The above genera occur in Java, but none is yet recorded from the Philippines.

CALAMOCERATIDÆ

Key to the genera.

- a*¹. Radius in fore wing not running into the first apical sector. *Anisocentropus*.
*a*². Radius in fore wing running into the first apical sector, also in hind wing.
*b*¹. Fore wings very long, rather narrow, and slightly falcate at tips; hind wings as broad as, or broader than, the fore wings..... *Asotocerus*.
*b*². Fore wings broad, not falcate at tips; hind wings narrower than the fore wings..... *Ganonema*.

Anisocentropus magnificus Ulmer.

One from Los Baños. A black-winged species with a blue sheen to the fore wing and a hyaline oblique bar across middle.

Asotocerus umbrosus sp. nov. Plate II, fig. 18.

Yellowish brown; antennæ yellowish, plainly ringed with black at tips of the joints; legs yellowish. Wings very dark brown, costal area and along anal veins almost black; hind wings fully as dark. Vertex with a prominent, median, rounded depression, a little longer than broad, and rather broader behind than in front; posterior warts large, nearly reaching the eyes, and not their long diameter apart. Fore wing with venation as figured, strongly falcate at tip; in hind wings forks 2 and 3 are subequal, fork 1 as far back as origin of the pedicel of fork 3.

Expanse, 36 millimeters.

PALAWAN, Puerto Princesa (*Baker*).

LEPTOCERIDÆ

Key to the genera.

- a*¹. Discoidal cell in hind wings closed; fore wings extremely long. *Notanatolica*.
*a*². Discoidal cell in hind wings open.
*b*¹. Fork 2 in fore wing present..... *Triænodes*.

*b*². Fork 2 in fore wing absent.

*c*¹. In hind wings (which are very broad) the costal venation indistinct.
Leptocella.

*c*². In hind wings the costal venation as distinct as elsewhere.

*d*¹. Two spurs on front tibia; in female the median vein in fore wing twice branched beyond the anastomosis..... Leptocerus.

*d*². But one or no spurs to front tibia; in female (as in male) the median but one-branched beyond anastomosis.

*e*¹. Upper median of fore wing plainly forked at or near anastomosis.

*f*¹. Fore wings very broad; hind wings also rather broad; fore wings sparsely clothed with hair..... Tagalopsyche.

*f*². Fore wings as well as hind wings very slender; fore wings densely clothed with hair..... Setodes.

*e*². Upper median simple, the lower median forked at or near the anastomosis.

*g*¹. Subcosta and radius united above the discal cell.... Cæcetinella.

*g*². Subcosta and radius not united..... Cæcetina.

Leptocella bakeri Banks.

One, the type, from Los Baños.

Notanatolica magna Walk.

From Mount Maquiling.

Notanatolica opposita Walk.

Several from Mount Maquiling and Los Baños; both of these species are widely spread in this region.

Cæcetinella confluens Ulmer.

Two from Los Baños. Described from Java.

Cæcetina sp.

A broken specimen from Mount Maquiling.

Setodes apicipennis Banks.

One from Los Baños.

Tagalopsyche sisyroides Banks.

Two from Mount Maquiling and Los Baños.

HYDROPSYCHIDÆ

This family is usually divided into four families; however, three of them are very closely interwoven in structure, so it is better to use but two groups which I believe are not more than subfamilies.

Key to the subfamilies.

*a*¹. Antennæ much longer than fore wings; palpi often lacking; hind wings much broader than the fore wings..... Macronematinae.

*a*². Antennæ not as long as fore wings; palpi present; hind wings but little if any broader than fore wings..... Hydropsychinae.

MACRONEMATINÆ

Key to the genera.

- α^1 . Palpi lacking.
 b^1 . No median cell; discoidal cell very broad; venation peculiar. *Æstropsyche*.
 b^2 . Median cell present.
 c^1 . Discal all present, normal..... *Polymorphanisus*.
 c^2 . Discal all absent or abnormal..... *Æthaloptera*.
 α^2 . Palpi present.
 d^1 . Discal cell of fore wings closed..... *Macronema*.
 d^2 . Discal cell of fore wings open or lacking; some costal cross veins. *Amphipsyche*.

Æstropsyche vitrina Br.

Recorded from the Philippines; I have not received it.

Polymorphanisus semperi Br.

Described from the Philippine Islands; I have three from Mount Maquiling. A large, green caddice fly, the male with hyaline streaks in apex of wing.

Macronema bella sp. nov. Plate II, fig. 19.

Head, prothorax, two basal joints of the antennæ, all coxæ and femora, and the hind tibia nearly golden yellow; rest of the antennæ, front legs, and thorax black; rest of body and middle and hind tibia brown. Fore wings rich dark brown, with several clear, silvery white marks as in the figure; a sub-apical streak, two costal spots, tending to form a V, one behind, with a basal extension, a small costal mark toward base, another small median spot nearer base, and a double, oblique mark behind; the latter may be broken into two spots. Hind wings not quite as dark as the fore wings, with two white costal spots toward tip. Fore wings not very acute at tip and rather narrow; fork 1 with pedicel one half as long as discal cell, the latter twice as long as broad, and rather broader than the median, but latter one third longer. Venation black, except on the white spaces. Vertex with large, nearly circular anterior warts, not their diameter apart, posterior warts not one fourth as large, subtriangular; mesonotum polished. Male inferior appendages slender, apical part about as long as basal; barely clavate.

Expanse, 36 millimeters.

LUZON, Tayabas, Malinao (*Baker*).

HYDROPSYCHINÆ

Key to the genera.

- α^1 . Fork 4 of fore wings as long as fork 5, or fork 5 absent.
 b^1 . Fork 5 absent; spurs 3, 4, 4..... *Pseudoneureclipsis*.

- b*³. Fork 5 present.
- c*¹. Ocelli present; a cross vein above end of discal cell.
- d*¹. Spurs 2, 4, 4; small species..... *Echnopsyche*.
- d*². Spurs 3, 4, 4; large species..... *Stenopsyche*.
- c*². Ocelli absent; no such cross vein.
- e*¹. Fork 1 absent in hind wings.
- f*¹. Spurs 3, 4, 4; fork absent in the wings..... *Ecnomus*.
- f*². Spurs 2, 4, 4; fork 3 present in hind wings..... *Hydropsychodes*.
- e*². Fork 1 present in both wings.
- g*¹. Antennæ crenulate beneath; abdomen with filament each side.
Diplectrona.
- g*². Antennæ not crenulate; no filament to the abdomen.
- h*¹. Female with mid tibiæ broadened; male with outer claw malformed or absent..... *Hydropsyche*.
- h*². Female with tibiæ normal; and male with claws normal.
Hydromanicus.
- a*³. Fork 4 of fore wings shorter than fork 5, or fork 4 absent.
- i*¹. Ocelli present; fork 4 absent in fore wings; spurs 2, 4, 4..... *Chimarra*.
- i*². Ocelli absent; fork 4 present.
- j*¹. Spurs 3, 4, 4.
- k*¹. Discal cell in hind wings closed; fork 1 in hind wings present; pronotum rather long..... *Dipseudopsis*.
- k*². Discal cell in hind wings open; pronotum small.
- l*¹. Fork 1 in hind wings present..... *Polycentropus*.
- l*². Fork 1 in hind wings absent..... *Polyplectropus*.
- j*². Spurs 2, 4, 4; fork 1 absent in both wings; hind wings narrow.
- m*¹. Third joint of palpi longer than second..... *Tinodes*.
- m*². Third joint of palpi shorter than second..... *Psychomyia*.

Genus DIPSEUDOPSIS Walker

- a*¹. Wings rather clear, and all veins distinctly margined with brown.
nervosa.
- a*². Veins not distinctly margined with brown.
- b*¹. Male with a few short pale spots beyond anastomosis, none before; female pale, unmarked..... *bakeri*.
- b*². Male with elongate silvery spot beyond anastomosis, and one or more before *luctuosa*.

Dipseudopsis nervosa Br.

Described from the Philippine Islands; one from Los Baños.

Dipseudopsis luctuosa Banks.

From Los Baños and Mount Maquiling.

Dipseudopsis bakeri sp. nov. Plate II, figs. 20 and 21.

Brown; antennæ, palpi (except the last joint), legs, and venter yellowish. Wings brownish yellow, veins pale yellowish, the membrane with minute golden hairs; a hyaline white spot on origin of median fork and on cross vein obliquely back of it. Beyond anastomosis in the base of each cell including fork 1 to fork 4 is a pale, rather silvery spot, the middle pair elongate,

but all small; in one case one spot stretches along the lower border of fork 2; a pale elongate spot near end of anal vein, and one in the cell above it. Hind wings brownish, with the median fork and cross vein hyaline white. Venation very similar to that of *D. nebulosus*, the discal and median cells rather shorter than in that species, the wing beyond the anastomosis also a little shorter. In the female the color is more yellowish throughout, and in the fore wings there is no spot beyond the anastomosis.

Expanse, 27 millimeters.

LUZON, Laguna, Mount Maquiling and Los Baños (*Baker*).

At first I took this to be but a form of *D. nebulosus*, but with additional material, including males, it is seen to be very distinct; the form of the modified spur is very different from that of *D. nebulosus*.

Diplectrona cinctipennis Banks.

From Los Baños and Mount Maquiling; described as a *Hydromanicus*.

Hydromanicus fasciatus Ulmer.

One from Los Baños; also known from Java.

Hydropsychodes costalis Banks.

Two from Los Baños.

Echnopsyche reticulata Banks.

One, the type, from Los Baños.

Chimarraha luzonica Banks.

One from Los Baños.

Polyplectropus sp.

One specimen, black-winged, dotted, with golden hairs.

Nyctiophylax tagalensis sp. nov. Plate II, fig. 22.

Brown; palpi yellowish brown; antennæ pale yellowish; gray hair between the antennæ, brown on the vertex; legs pale yellowish, the middle tarsi with dark marks. Abdomen dark in the middle, pale at base and tip. Wings yellowish gray, marked with brown, many short, fine, golden hairs; patches of brown at stigma, along costal, along anal margins, and over the cubital fork, and smaller ones elsewhere, especially along the outer margin and in region of the anastomosis; hind wings gray, darker at tips.

Expanse, 8 millimeters.

LUZON, Laguna, Mount Maquiling (*Baker*).

ILLUSTRATIONS

PLATE I

- FIG. 1. *Calopsocus rizali* sp. nov., fore wing.
2. *Calopsocus rizali* sp. nov., head.
3. *Myopsocus bakeri* sp. nov., fore wing.
4. *Epipsocus inornatus* sp. nov., fore wing.
5. *Epipsocus completus* sp. nov., wings.
6. *Amphipsocus connexus* sp. nov., fore wing.
7. *Amphipsocus unitus* sp. nov., fore wing.
8. *Kolbea bakeri* sp. nov., fore wing.
9. *Tagalopsocus luzonensis* g. et sp. nov., fore wing.
10. *Tagalopsocus luzonensis* g. et sp. nov., hind wing.

PLATE II

- FIG. 11. *Cæcilius castellus* sp. nov., wings.
12. *Cæcilius guttulatus* sp. nov., wings.
13. *Cæcilius inæqualis*, sp. nov., fore wings.
14. *Dypsocus apicatus* sp. nov., fore wing.
15. *Dypsocus apicatus* sp. nov., basal part of antenna.
16. *Myrmeleon angustipennis* sp. nov., pronotum.
17. *Distoleon bakeri* sp. nov., head and pronotum.
18. *Asotocerus umbrosus* sp. nov., fore wing.
19. *Macronema bella* sp. nov., wings.
20. *Dipseudopsis bakeri* sp. nov., genitalia.
21. *Dipseudopsis bakeri* sp. nov., spur.
22. *Nyctiophylax tagalensis* sp. nov., male genitalia.

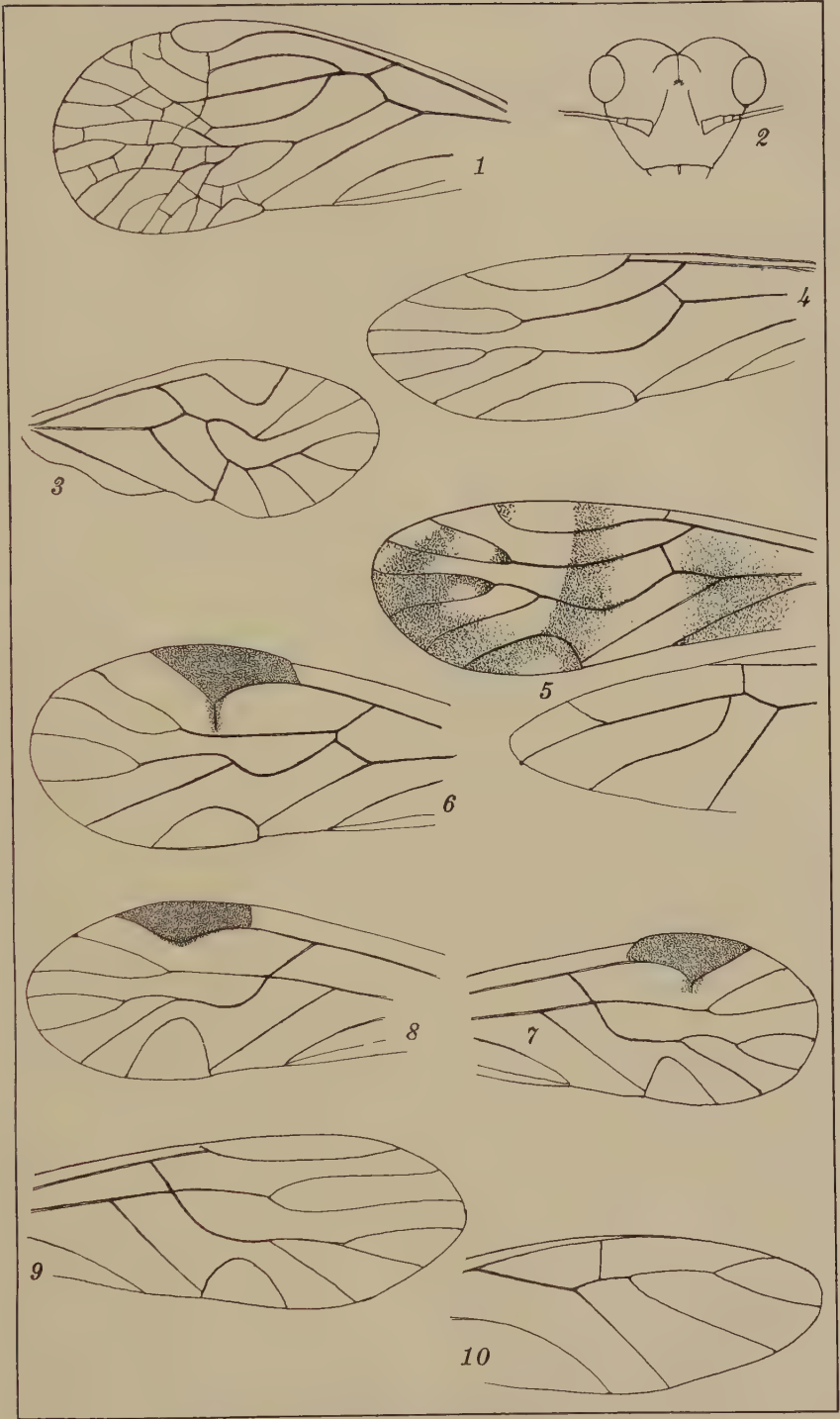


PLATE I. PHILIPPINE NEUROPTEROID INSECTS.

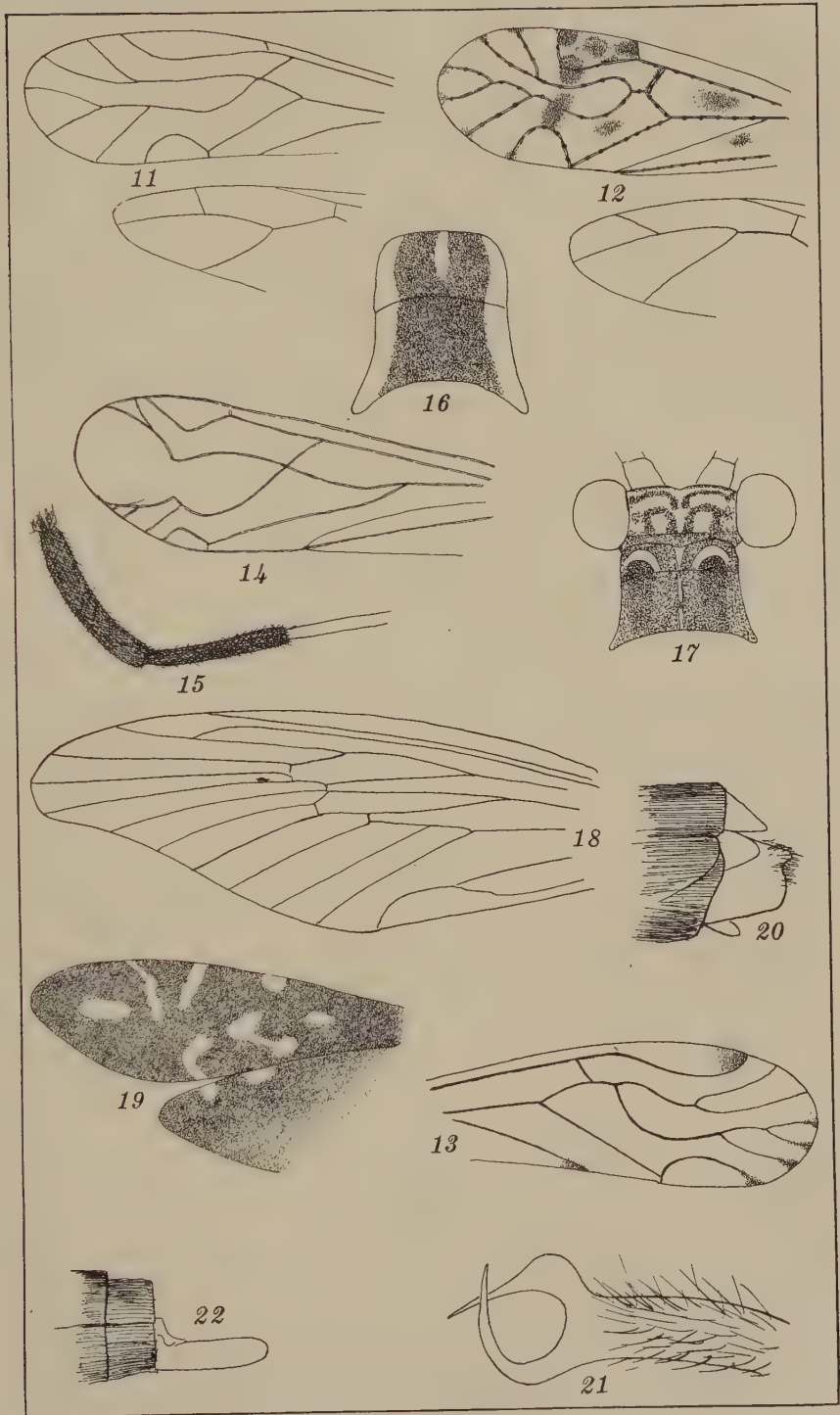


PLATE II. PHILIPPINE NEUROPTEROID INSECTS.

ELATERIDÆ DES ILES PHILIPPINES, II ¹

Par ED. FLEUTIAUX

(Nogent-sur-Marne, France)

Les Elaterides décrits en suite sont partie d'une collection que j'ai reçu de M. C. F. Baker, professeur d'agronomie au Collège d'Agriculture de Los Baños, îles Philippines.

Lacon dorcinus Candèze.

Comp. Rend. Soc. Ent. Belg. (1875), 119.

MINDANAO, Dapitan.

Lacon cervinus Erichson.

Nov. Act. Ac. Leop. Carol. (1834), 16; Suppl. I, 230; CANDÈZE, Révis.
Mon. Elat. (1874), 48, 78.

Espèce très voisine de *L. binodulus* Motschulsky du Japon.
LUZON, Laguna, Mont Maquiling.

Lacon subcervinus sp. nov.

Allongé, peu convexe; brun noirâtre, varié de rouge; pubescence grise formant des taches plus denses sur les élytres. Tête déprimée au milieu, fortement ponctuée. Pronotum plus long que large, arqué sur les côtés, fortement ponctué, surtout en avant, marqué de deux légers tubercules au milieu; angles antérieurs saillants, arrondis; angles postérieurs divergents et tronqués, longuement carénés parallèlement et près du bord latéral. Ecusson oblong. Elytres subparallèles, graduellement rétrécis dans le quart postérieur, assez fortement ponctués-striés. Dessous brun noirâtre, pubescence courte, régulière, ne cachant pas le fond; ponctuation forte en avant, plus fine en arrière. Pattes ferrugineuses.

Longueur, 12 millimètres.

LUZON, Bataan, Mont Trimay.

Voisin de *L. cervinus* Erichson. De forme moins convexe, plus allongée; pronotum plus long, moins fortement ponctué; interstries des élytres plus convexes; pubescence du dessous plus légère; hanches postérieures plus anguleuses.

Lacon bakeri sp. nov.

Allongé, subparallèle; brun noirâtre varié de rouge; pubescence jaunâtre, assez dense sur le pronotum, courte et peu serrée

¹ Voir le *Phil. Journ. Sci., Sec. D* (1914), 9, 441-449.

sur les élytres. Tête fortement ponctuée, impression née en avant. Antennes courtes, dentées, ferrugineuses. Pronotum un peu plus long que large, rétréci en avant, largement déprimé à la base, fortement ponctué; côtés sinueux, angles antérieurs assez saillants, arrondis; postérieurs divergents, largement tronqués, longuement carénés près du bord latéral. Ecusson subarrondi. Elytres parallèles, rétrécis et arrondis au sommet, assez fortement ponctués-striés, surtout latéralement; interstries peu convexes, tout-à-fait plans dans la région suturale. Dessous brun obscur; ponctuation forte dans la première moitié, beaucoup moins grosse en arrière; pubescence courte. Pattes ferrugineuses.

Longueur, 10 millimètres.

MINDANAO, Butuan.

Voisin de *L. piger* Candèze. Plus étroit, moins convexe, brunâtre; pronotum plus rétréci en avant, largement et nettement déprimé à la base; ponctuation moins grosse; élytres moins fortement striés; sillons tarsaux nuls, les antérieurs indiqués par une simple dépression peu profonde.

Lacon spurcus Candèze.

Elat. Nouv. (1864), 1, 11; Révis. Mon. Elat. (1874), 49, 82.

LUZON, Tayabas, Malinao.

Lacon trifasciatus Candèze.

Elat. Nouv. (1864), 1, 10; Mém. Soc. Roy. Sc. Liège (1873), II, 5, 1; Revis. Mon. Elat. (1874), 49; Ann. Soc. Ent. Belg. (1892), 485; Ann. Mus. Civ. Genova (1894), 486.

LUZON, Laguna, Mont Maquiling. MINDANAO, Butuan.

Cette espèce habite toute la région indo-malaise et jusqu'au Japon.

Meristhus nigrifolius Candèze.

Elat. Nouv. (1893), 5, 10; FLEUTIAUX, Ann. Soc. Ent. Belg. (1895), 167; Phil. Journ. Sci., Sec. D (1914), 9, 441.

LUZON, Laguna, Mont Maquiling.

Alaus nebulosus Candèze.

Mon. Elat. (1857), 1, 215, 232; Révis. Mon. Elat. (1874), 121, 137.

LUZON, Tayabas, Mont Banahao.

Campsosternus rutilans Chevrolat.

Rev. Zool. (1841), 222; GERMAR, Zeitschr. f. Ent. (1843), 4, 106; CANDÈZE, Mon. Elat. (1857), 1, 342, 346; Révis. Mon. Elat. (1874), 190; Compt. Rend. Soc. Ent. Belg. (1875), 121.

sumptuosus HOPE, Trans. Ent. Soc. London (1843), 3, 288; GERMAR, Zeitschr. f. Ent. (1843), 3, 101.
rutilans var. *a* CANDÈZE, Mon. Elat. (1857), 346.

LUZON, Tayabas, Mont Banahao.

***Oxynopterus mucronatus* Olivier.**

Journ. Hist. Nat. (1792), 1, 262, t. 14, f. 1; ESCHSCHOLTZ, Thon Arch. (1829), II, 1, 34; LATREILLE, Ann. Soc. Ent. France (1834), 148; HOPE, Proc. Zool. Soc. London (1842), 77; GERMAR, Zeitschr. f. Ent. (1843), 4, 49; CANDÈZE, Mon. Elat. (1857), 1, 358, t. 7, f 3, ♂; Révis. Mon. Elat. (1874), 205.
audouini HOPE, Proc. Zool. Soc. London (1842), 77; CANDÈZE, Mon. Elat. (1857), 1, 206.
cumingi HOPE, Proc. Zool. Soc. London (1842), 77; WESTWOOD, Cabin. Orient. Ent. (1848), 71, t. 35, f. 5.
flabellicornis CASTELNAU, Hist. Nat. Ins. Col. (1840), 1, 230.
javanus HOPE, Proc. Zool. Soc. London (1842), 78.

LUZON, Tayabas, Mont Banahao.

Habite tout l'Archipel Malais.

***Monocrepidius philippinensis* sp. nov.**

Allongé, peu convexe; jaune brillant, pubescence plus pâle. Tête à peine distinctement pointillée, bord antérieur arrondi, peu saillant. Antennes jaunes pâle. Pronotum aussi large que long, peu convexe, brillant, arrondi sur les côtés et rétréci en avant, orné d'une tache obscure sur la ligne médiane à la base; ponctuation très fine, bien nette et écartée; angles postérieurs à peine divergents, assez longs, carénés latéralement. Ecusson noir, oblong, atténué en arrière. Elytres graduellement rétrécis en arrière, rugueux, profondément ponctués-striés, ornés en arrière d'une tache obscure assez longue, entre la suture et le bord externe. Dessous du propectus jaune, reste du corps rougeâtre. Pattes jaune pâle.

Longueur, 5 millimètres.

LUZON, Tayabas, Mont Banahao.

Espèce remarquable par son aspect brillant surtout sur le pronotum et par la forme courte de ce dernier. Quatrième article des tarses simplement dilaté et échancré en dessus pour recevoir le suivant.

***Aeolus beccarii* Candèze.**

Ann. Mus. Civ. Gen. (1878), 117; FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 441.

LEYTE, Tacloban.

Megapenthes angulosus Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 122.

LUZON, Laguna, Mont Maquiling. MINDANAO, Dapitan.

Megapenthes inconditus Candèze.

Mon. Elat. (1859), 2, 504; Compt. Rend. Soc. Ent. Belg. (1875), 122;

Ann. Mus. Civ. Genova (1878), 122; FLEUTIAUX, Phil. Journ. Sci.,

Sec. D (1914), 9, 442.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao et Malinao. PALAWAN, Puerto Princesa.

Espèce très variable de taille (5 à 14 millimètres) et de couleur (du jaune au brun). Mon variété de petite taille est moins fortement ponctuée sur le pronotum et rugueuse sur les élytres.

Megapenthes luzonicus Fleutiaux.

Phil. Journ. Sci., Sec. D (1914), 9, 442.

LUZON, Tayabas, Mont Banahao.

Megapenthes junceus Candèze.

Elat. Nouv. (1864), 1, 30; Ann. Mus. Civ. Genova (1878), 122.

variété CANDÈZE, Compt. Rend. Soc. Ent. Belg. (1875), 122.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao. MINDANAO, Butuan.

Megapenthes inflatus Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 122.

LUZON, Tayabas, Mont Banahao.

Megapenthes fulvus Fleutiaux.

Phil. Journ. Sci., Sec. D (1914), 9, 443.

LUZON, Tayabas, Mont Banahao.

Megapenthes maceratus Candèze.

Elat. Nouv. (1896), 6, 42.

Espèce décrite de Balabac.

Melanoxanthus hemionus Candèze.

Elat. Nouv. (1893), 5, 38.

zebra CANDÈZE, Mon. Elat. (1859), 2, 516 (pars); Compt. Rend. Soc.

Ent. Belg. (1875), 124.

LUZON, Laguna, Paete.

Melanoxanthus approximatus Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 123.

LUZON, Laguna, Mont Maquiling.

Melanoxanthus sextus Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 124.

LUZON, Tayabas, Malinao.

Melanoxanthus bakeri Fleutiaux.

Phil. Journ. Sci., Sec. D (1914), 9, 443.

LUZON, Laguna, Mont Maquilang (localité omise, l. c.).

Melanoxanthus militaris sp. nov.

Ovale, assez convexe; noir brillant avec deux taches rouges sur les élytres, près de la base, pubescence de la couleur du fond. Tête grande, convexe, densément ponctuée, bord antérieur arrondi et saillant. Antennes assez épaisses, noires, jaunes à la base, dépassant la base du pronotum. Pronotum plus long que large, arrondi sur les côtés, rétréci en avant, moins densément ponctué que la tête: angles postérieurs bicarénés. Ecusson rugueux. Elytres graduellement rétrécis en arrière, distinctement ponctués-striés à la base, à peine visiblement vers l'extrémité. Dessous noir. Cuisses noires, tibias et tarses jaunes.

Longueur, 4.5 millimètres.

LUZON, Tayabas, Mont Banahao.

Diffère du *M. dorsatus* Candèze par sa forme elliptique, son aspect brillant, le bord antérieur de la tête tranchant, le pronotum moins long et graduellement rétréci en avant.

Melanoxanthus nitidicollis sp. nov.

Allongé, fusiforme; d'un noir brillant, angles postérieurs du pronotum flaves, une bande jaune sur le milieu de chaque élytre. Tête arrondie en avant, rebord saillant, ponctuation nulle. Antennes noirâtres, plus clairs à la base et à l'extrémité, dépassant la base du pronotum. Pronotum plus long que large, notablement rétréci en avant, finement pointillé, plus distinctement en arrière, sillonné au milieu à la base; angles postérieurs dilatés, divergents, carénés. Elytres atténués en arrière, ornés d'une bande jaune dans toute leur longueur, fortement ponctués-striés, interstries convexes. Dessous noir. Pattes jaune clair.

Longueur, 3.5 millimètres.

LUZON, Tayabas, Mont Banahao.

Près de *M. cuneolus* Schwarz; pronotum très rétréci en avant, angles postérieurs dilatés et divergents; élytres ornés d'une bande jaune dans toute leur longueur.

Melanoxanthus philippinensis sp. nov.

Oblong, convexe, atténué en arrière. Tête noire, convexe, densément ponctuée. Antennes noirâtres, rouges à la base. Pro-

notum plus long que large, convexe, déprimé et sillonné au milieu à la base, entièrement jaune; ponctuation régulière et serrée, moins forte que sur la tête; angles postérieurs aigus et carénés. Elytres noirs, ornés chacun d'une grande tache jaune à la base et d'une autre plus petite avant l'extrémité, fortement ponctués-striés, échancrés au sommet; interstries rugueux. Propectus jaune. Dessous du corps noir. Pattes jaunes.

Longueur, 4 millimètres.

LUZON, Tayabas, Mont Banahao. MINDANAO, Butuan.

Voisin de *M. quadrinotatus* Candèze, plus petit; pronotum entièrement jaune, taches jaunes de la base des élytres plus grandes, les postérieurs plus en arrière.

Melanoxanthus cinctus sp. nov.

Oblong, convexe; noir, avec la plus grande partie du pronotum au milieu, ses angles antérieurs, la partie dorsale des élytres et le propectus rouges. Tête noire, convexe, criblée de points ombiliqués. Antennes noires. Pronotum plus long que large, arrondi et atténué en avant, convexe, brusquement déprimé à la base, sillonné au milieu en arrière, criblé de points assez gros et serrés, rouge, marqué d'une bande noire sur le côté, ne touchant pas le bord en avant; angles postérieurs aigus et carénés. Ecusson noir ou brunâtre, triangulaire, rugueux. Elytres convexes, atténués en arrière, fortement ponctués-striés, rugueux dans les intervalles, rouges ou brunâtres, avec le pourtour noir. Dessous fortement ponctué. Propectus rouge, métasternum brunâtre, abdomen noir. Pattes brunes, plus ou moins rougêtres.

Longueur, 4.5 à 5.5 millimètres.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.

Voisin de *M. bicolor* Candèze; couleur rouge moins vive, tête noire, pronotum bordé latéralement d'une bande noire, élytres rouges sur la plus grande partie du milieu.

Melanoxanthus crucifer Fleutiaux.

Phil. Journ. Sci., Sec. D (1914), 9, 445.

MINDANAO, Butuan; Lanao, Iligan. PALAWAN, Puerto Princesa.

Melanoxanthus bitriplex Candèze.

Elat. Nouv. (1896), 6, 43.

LUZON, Laguna, Mont Maquiling; Tayabas, Malinao. MINDANAO, Butuan. Egalement de Bornéo, Sumatra, Célèbes, îles Sangé.

Melanoxanthus luzonicus Fleutiaux.

Phil. Journ. Sci., Sec. D (1914), 9, 444.

LUZON, Laguna, Mont Maquiling (et non Los Baños, l. c.).

Melanoxanthus affinis Fleutiaux.

Phil. Journ. Sci., Sec. D (1914), 9, 444.

LUZON, Tayabas, Mont Banahao. MINDANAO, Butuan.

Melanoxanthus ater Fleutiaux.

Phil. Journ. Sci., Sec. D (1914), 9, 445.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.

Cette espèce atteinte 5 millimètres.

Melanoxanthus vicinus sp. nov.

Allongé, peu convexe, pubescence fauve. Tête brune, plus claire en avant, convexe et ponctuée, bord antérieur arrondi et saillant. Antennes brunes, jaunâtres à la base et à l'extrémité. Pronotum d'un brun clair, rétréci en avant, assez fortement ponctué, sillonné au milieu à la base; angles postérieur jaunes, aigus et carénés. Elytres noirs ornés chacun d'une tache jaune oblique partant de l'épaule et dirigée en arrière vers la suture et d'une autre plus petite, arrondie, au tiers postérieur, ponctués-striés. Dessous noirâtre. Pattes jaunes.

Longueur, 3 millimètres.

LUZON, Laguna, Mont Maquiling.

Espèce très voisine de *M. minutus* Candèze, la tache jaune de la base des élytres est plus longue et oblique, alors que dans l'espèce de Candèze elle affecte la forme arrondie.

Melanoxanthus infuscatus sp. nov.

Melanoxanthus infimus FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 445 (nec Candèze).

Allongé, peu convexe; d'un brun noirâtre mat, avec les angles postérieurs du pronotum et la base des élytres flaves. Tête convexe, ponctuée, brune sur le dessus, jaunâtre en avant. Antennes noirâtres, jaunes à la base. Pronotum plus long que large, peu rétréci en avant, couvert de points serrés ombiliqués; angles postérieurs aigus et carénés. Elytres noirâtres avec la base jaune graduellement obscurcis en arrière, ponctués-striés. Dessous noirâtre. Pattes jaunes.

Longueur, 3 millimètres.

LUZON, Laguna, Los Baños.

Voisin de *M. minutus* Candèze, mais d'aspect mat; pronotum de forme plus allongée à ponctuation plus grosse et ombiliquée; élytres sans taches distinctes, graduellement enfumés en arrière.

Melanoxanthus butuanus sp. nov.

Oblong, peu convexe, d'une jaune plus ou moins obscur, pubescence jaune clair. Tête fortement ponctuée, arrondie en avant, rebord saillant. Antennes jaune clair. Pronotum plus long que large, peu rétréci en avant, densément ponctué, moins fortement en avant, sillonné au milieu à la base; angles postérieurs aigus et carénés. Ecusson rugueux. Elytres graduellement rétrécis en arrière, ponctués-striés, interstries rugueux à la base. Dessous de la même couleur. Pattes flaves.

Longueur, 4 à 4.5 millimètres.

MINDANAO, Butuan.

Espèce voisine de *M. frictus* Candèze, front non caréné, pronotum légèrement arrondi sur les côtés et un peu plus étroit en avant.

Melanoxanthus bicinctus sp. nov.

Oblong; noir opaque, avec la base du pronotum et une large bande sur le milieu de chaque élytre jaunes. Tête arrondie en avant, assez fortement ponctuée. Antennes noirâtres, jaunes à la base. Pronotum à peine plus long que large, faiblement rétréci en avant, ponctué; extrême base et angles postérieurs jaunes. Elytres noirs sur la suture, sur les côtés et au sommet, jaunes longitudinalement au milieu, fortement ponctués-striés. Dessous noirâtre. Pattes jaunes.

Longueur, 3.5 millimètres.

NEGROS, les montagnes Cuernos.

Voisin de *M. taeniatus* Candèze, forme générale plus allongée et moins convexe.

Drasterius sulcatulus Candèze.

Mon. Elat. (1859), 2, 423, 427; FLEUTIAUX, Ann. Soc. Ent. Belg. (1895), 169; Phil. Journ. Sci., Sec. D (1914), 9, 442.

LUZON, Laguna, Mont Maquiling.

Elater conspurcatus Candèze.

Elat. Nouv. (1889), 4, 34.

LUZON, Laguna, Mont Maquiling. .

Anchastus unicolor Candèze.

Elat. Nouv. (1881), 3, 61.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.

Anchastus sericeus Candèze.

Elat. Nouv. (1864), 1, 27.

MINDANAO, Butuan; Misamis, Dapitan.

Espèce décrite de Bornéo.

Anchastus fulvus sp. nov.

Oblong, déprimé; entièrement d'un jaune clair, pubescence jaune. Tête ponctuée. Pronotum aussi long que large, peu rétréci en avant, ponctuation fine et espacée; angles postérieurs bicaréné, la première carène longue, parallèle au bord externe, la deuxième très courte. Elytres ponctués-striés. Dessous de la même couleur. Pattes d'un jaune plus clair.

Longueur, 4 millimètres.

MINDANAO, Lanao, Iligan.

Ressemble à *A. sericeus* Candèze; de taille plus petite, de couleur plus claire, ponctuation plus fine; pronotum plus arrondi latéralement, deuxième carène des angles postérieurs à peine visible.

Anchastus vittatus Fleutiaux var. *bakeri* var. nov.

Anchastus vittatus FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 445.

Pronotum latéralement bordé de jaune.

LUZON, Laguna, Mont Maquiling.

Anchastus rufangulus Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 121.

LUZON, Laguna, Mont Maquiling. MINDANAO, Butuan; Lanao, Iligan.

Anchastus suturalis sp. nov.

Allongé, étroit; noir; pubescence jaune, noire sur les côtés des élytres et formant à partir de l'épaule une bande latérale s'élargissant en arrière. Tête finement ponctuée, rebordée en avant. Antennes noirâtres avec les deux premiers articles jaunes. Pronotum plus long que large, subparallèle, peu rétréci en avant, peu convexe, criblé de gros points serrés peu profonds; angles postérieurs ferrugineux. Elytres faiblement rétrécis en arrière, rugueux, fortement ponctués-striés, ornés d'une tache rouge en arrière sur la suture. Dessous noir varié de brun rougeâtre. Pattes jaunes.

Longueur, 5 millimètres.

MINDANAO, Butuan.

Espèce de forme allongée voisine de *A. rufangulus* Candèze.

Remarquable par la pubescence bicolor des élytres et la tache rouge postérieure sur la suture.

Hemirrhaphes candezei sp. nov.

Oblong, convexe; noir assez brillant; pubescence jaune claire; extrême base du pronotum, angles postérieurs et base des élytres plus au moins rougeâtres. Tête large, peu convexe, bordée en avant, assez fortement ponctuée. Antennes jaunâtres, plus clairs à la base. Pronotum plus long que large, parallèle, à peine rétréci en avant; ponctuation assez forte, pas très serrée; carène des angles postérieurs longue, très oblique et sinueuse. Ecusson grand, rétréci en arrière, convexe, rugueux. Elytres arrondis au sommet, faiblement rugueux à la base, fortement ponctués-striés. Dessous de la même couleur, ponctuation forte et espacée. Pattes jaune clair.

Longueur, 2.5 à 3 millimètres.

LUZON, Laguna, Mont Maquiling.

Voison de *Arrhaphes*² *opacus* Candèze, angles postérieurs du pronotum, antennes et pattes jaunes; moins rugueux. J'en possède un exemplaire de Pérak et un de Banguay, Bornéo.

Hemirrhaphes cruciatus sp. nov.

Allongé, convexe, jaune. Tête plane, fortement ponctuée, noirâtre en avant. Antennes jaune clair. Pronotum plus long que large, densément ponctué, avec deux bandes obscures obliques, dans le sens de la longueur; carène des angles postérieurs transversale et sinueuse. Ecusson convexe et rugueux. Elytres arrondis au sommet, rugueux, fortement ponctués-striés, noirâtres avec quatre grandes taches jaunes occupant presque toute la surface et figurant une croix. Dessous jaunâtre, fortement et espacement ponctué. Pattes jaune clair.

Longueur, 3.5 millimètres.

LUZON, Laguna, Mont Maquiling.

Espèce voisine de *H. nigriceps* Candèze; tête noirâtre en avant; pronotum avec deux bandes longitudinales noirâtres, dessus des élytres formant une croix noire.

Cardiophorus unicolor Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 124.

LUZON, Laguna, Mont Maquiling.

Je possédais déjà de Mindanao, de Luzon et de Bohol un certain nombre d'exemplaires parmi lesquels se trouvent une

² Le nom de *Arrhaphes* doit disparaître, étant déjà employé [*Arrhaphes* Schaeffer (1850), Hémiptère] [*Arrhaphus* Kraatz (1860), Coléoptère].

variété à stries des élytres plus profondément ponctuée que je désignerai sous le nom de *striatus*.

Cardiophorus palawanus sp. nov.

Oblong, convexe, brun rougeâtre clair, pubescence jaune. Tête rugueusement ponctuée, arrondie et rebordée en avant. Antennes jaunes. Pronotum aussi long que large, convexe, arrondi sur les côtés, rétréci en arrière, très finement et assez densément ponctué; angles postérieurs courts; sillons basilaires peu profonds. Elytres ovales, finement rugueux, ponctués-striés. Dessous d'un brun obscur. Pattes jaunes.

Longueur, 6 millimètres.

PALAWAN, Puerto Princesa. NEGROS, les montagnes Cuernos.

Espèce voisine de *C. unicolor* Candèze; pronotum plus court et plus convexe; ongles dentés.

Cardiophorus philippinus sp. nov.

Allongé, peu convexe; noirâtre, avec les côtés du pronotum, la base et les côtés des élytres jaunâtres, pubescence jaune. Tête plane, rugueuse, bord antérieur arrondi et rebordé. Antennes jaunes. Pronotum plus long que large, peu convexe, arrondi sur les côtés, rétréci en avant et en arrière, finement et densément ponctué; angles postérieurs courts; sillons basilaires peu marqués. Ecusson concave. Elytres atténués en arrière, finement rugueux, assez profondément ponctués-striés. Dessous noirâtre avec les bords rougeâtres. Pattes jaunes.

Longueur, 7.25 millimètres.

PALAWAN, Puerto Princesa.

Espèce voisine de *C. anceps* Candèze, tête rugueuse, ponctuation du pronotum mieux marquée.

Cardiophorus banksi sp. nov.

Oblong, convexe; noir brillant; pubescence bicolore, brune sur la plus grande partie du corps et d'un blanc argenté formant des taches bien distinctes sur les côtés du pronotum et une bande transversale au delà de la moitié des élytres, remontant sur la suture. Tête peu convexe, finement et légèrement ponctuée, bord antérieur rebordé et avancé au milieu. Antennes noirâtres avec quelquefois la base jaune. Pronotum convexe, aussi long que large, rétréci seulement près des angles antérieurs, très finement pointillé; angles postérieurs non divergents; sillons basilaires bien marqués. Elytres graduellement rétrécis en arrière, fortement ponctués-striés. Dessous noir, moins pubescent. Pattes jaunes ou plus ou moins noirâtres.

Longueur, 4.25 à 5 millimètres.

LUZON, Laguna, Mont Maquiling. MINDANAO, Lanao, Iligan. PALAWAN, Puerto Princesa.

Espèce voisine de *C. nebulosus* Candèze, s'en distingue par les fascis pubescentes d'un blanc argenté, la bande transversale des élytres planés plus arrière et les stries beaucoup plus profondément ponctuées. Je la possède aussi de Pérak.

Je suis heureux de dédier cette espèce à M. le Prof. Charles S. Banks, chef du laboratoire d'Entomologie et de Zoologie du College d'Agriculture de la Université des Philippines à Los Baños.

Cardiophorus alvini sp. nov.

Oblong, peu convexe; noir brillant, pubescence jaunâtre. Tête très finement ponctuée, arrondie et rebordée en avant. Antennes brunes. Pronotum pas plus long que large, arrondi sur les côtés et rétréci en avant, finement et espacement pointillé; angles postérieurs courts, non divergents; sillons basilaires à peine distincts. Elytres profondément ponctués-striés. Dessous noir. Pattes noirâtres, avec les articulations et les tarses jaunâtres.

Longueur, 3.25 à 3.5 millimètres.

LUZON, Laguna, Mont Maquiling; Tayabas, Malinao.

Très voisin de *C. luzonicus* Eschscholtz, brièvement décrit en 1829; en diffère par le pronotum aussi long que large et la couleur noire des élytres.

Espèce dédiée à M. le Dr. Alvin J. Cox, directeur du Bureau de Science à Manila.

Diploconus ciprinus Candèze.

Elat. Nouv. (1864), 1, 47.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.

Diploconus umbilicatus Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 125.

angusticollis CANDÈZE, Compt. Rend. Soc. Ent. Belg. (1875), 126.

obscurus FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 447.

LUZON, Laguna, Mont Maquiling, Mont Linian; Tayabas, Malinao, Mont Banahao.

L'examen d'un certain nombre d'individus m'a permis de réunir ces trois espèces. La forme *D. angusticollis* s'applique vraisemblablement au mâle.

Diploconus philippinensis Fleutiaux.

obscurus FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 447.

LUZON, Tayabas, Mont Banahao.

Diploconus cantharus Candèze.

Elat. Nouv. (1893), 5, 48.

LUZON, Tayabas, Mont Banahao. MINDANAO, Misamis, Dapitan.

Diploconus nitidus sp. nov.

Allongé, peu convexe; rouge ferrugineux brillant avec le bord antérieur du pronotum, quelquefois la tête noirâtre et les élytres très légèrement obscurcis. Tête fortement ponctuée. Antennes brunâtres. Pronotum à peine plus long que large, à peine et graduellement rétréci en avant ou subparallèle et rétréci en rond près des angles antérieurs, assez fortement mais peu densément ponctué sur les côtés et en avant, très légèrement au milieu, sillonné au milieu, impressionné transversalement à la base; angles postérieurs aigus et bicarénés. Ecusson oblong. Elytres graduellement ou subgraduellement rétrécis en arrière, tronqués au sommet, ponctués-striés; interstries plans. Dessous et pattes de la même couleur ou plus ou moins obscurci.

Longueur, 8.5 à 9.75 millimètres.

LUZON, Tayabas, Mont Banahao.

Diffère de *D. philippinensis* Fleutiaux par sa couleur jaune, son aspect brillant, sa forme moins allongée, la ponctuation du pronotum irrégulière, très légère et espacée sur le milieu.

Melanotus ebeninus Candèze.

Mon. Elat. (1860), 3, 305, 335; Compt. Rend. Soc. Ent. Belg. (1875), 126; FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 448.

LUZON, Laguna, Mont Maquiling. MINDANAO, Cagayan; Lanao, Iligan.

Melanotus scribanus Candèze var. *bakeri* var. nov.

Melanotus scribanus FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 448, nec Candèze.

LUZON, Laguna, Los Baños, Mont Maquiling.

Ponctuation du pronotum moins effacée au milieu, presque aussi forte que sur les côtés mais plus espacée.

Ludius hirsutus Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 126; FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 448.

LUZON, Laguna, Mont Maquiling. PALAWAN, Puerto Princesa.

Ludius germanus var. *a* Candèze.

Ann. Mus. Civ. Genova (1894), 498.

MINDANAO, Butuan; Lanao, Iligan.

Espèce décrite de Sumatra.

Genus LUZONICUS novum

Corps allongé, déprimé. Front aplati, impressionné, ne formant pas de rebord saillant au dessus du labre. Mandibules sail-lants, bifides. Antennes très courtes à articles transversaux. Pronotum subélargi en avant; angles postérieurs divergents, brièvement et obtusément carénés. Ecusson oblong. Elytres subparallèles. Sutures prosternales rectilignes. Hanches postérieures étroites, à peine et graduellement rétrécis en dehors. Pattes normales; tarses simples, ongles simples et assez grands.

Ce genre se place dans le voisinage de *Melanactes* et *Chrosis* (*Corymbitinæ*).

Luzonicus bakeri sp. nov.

Allongé, déprimé, parallèle; brun rougeâtre avec la seconde moitié des élytres noirâtre, pubescence jaune peu dense. Tête largement impressionnée au milieu, criblée d'une ponctuation forte et serrée. Antennes jaunâtres, ne dépassant pas la moitié du pronotum; articles transversaux à partir du quatrième. Pronotum plus long que large, légèrement bombé, sinué sur les côtés, arrondi et subélargi en avant, fortement et profondément ponctué. Ecusson plan, finement ponctué. Elytres assez large-ment arrondis en arrière, finement ponctués, profondément ponctué-striés. Dessous brun rougeâtre. Pattes jaunâtres.

Longueur, 13 millimètres.

LUZON, Laguna, Mont Maquiling.

Curieuse espèce déprimée dont le pronotum rappelle celui de certains *Pachyderes* (*P. africanus*, *P. bengalensis*, *P. niger*).

Agonischius bakeri sp. nov.

Elliptique, convexe; noir avec les élytres jaunes, pubescence roussâtre. Tête fortement ponctuée. Antennes noires. Pro-notum plus long que large, sinueux sur les côtés, rétréci en avant, convexe, sillonné au milieu, fortement et densément ponctué sur les côtés, moins sur la ligne médiane; angles postérieurs aigus, divergents, bicarénés. Ecusson atténué en arrière, légèrement ponctué. Elytres très atténués en arrière, convexes, rugueux, fortement ponctués-striés. Dessous noir. Pattes brunâtres.

Longueur, 15 millimètres.

LUZON, Tayabas, Mont Banahao.

Espèce voisine de *A. corpulentus* Candèze, entièrement noire, sauf les élytres jaunes et les pattes brunâtres; pubescence rousse.

Glyphonyx posticus Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 127.

LUZON, Laguna, Mont Maquiling. MINDANAO, Butuan.

Glyphonyx falsus Candèze.

Elat. Nouv. (1896), 6, 78.

MINDANAO, Butuan.

Espèce décrite de Palawan.

Glyphonyx erraticus Candèze.

Compt. Rend. Soc. Ent. Belg. (1875), 127.

posticus (?) FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 449 (nec Candèze).

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.
MINDANAO, Butuan.

Glyphonyx feneus Candèze.

Elat. Nouv. (1896), 6, 78.

erraticus var. FLEUTIAUX, Phil. Journ. Sci., Sec. D (1914), 9, 449 (nec Candèze).

LUZON, Laguna, Los Baños; Tayabas, Mont Banahao.

Glyphonyx ornatus sp. nov.

Allongé, assez convexe; noir brillant, pubescence jaune assez longue, pas très serrée. Tête ponctuée. Antennes jaune clair. Pronotum très brillant, ponctuation extrêmement fine et espacée; angles postérieurs jaunes. Ecusson oblong, noir. Elytres noires avec le tiers antérieur et une tache oblongue sur chacun en arrière jaunes; stries ponctuées et profondes. Dessous noir. Pattes blanchâtres.

Longueur, 3.25 millimètres.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.

Jolie espèce remarquable par sa forme étroite, son aspect brillant et les taches jaunes des élytres bien marquées. Voisine de *G. quadrimaculatus* Candèze.

SEA PRODUCTS OF MINDANAO AND SULU, I: FOOD FISHES AND SHARKS

By ALVIN SEALE

(*From the Section of Fisheries, Biological Laboratory, Bureau of Science,
Manila, P. I.*)

TWO PLATES

During 1900-1902 I made a study of the fisheries of the Pautotu and Gambier Islands in the eastern Pacific. From these islands I went to Australia and to the Solomon Islands, paying especial attention to the pearl fisheries of these places. Afterward it was my privilege to make a short but interesting investigation of the fisheries in Japan. In 1908 my first preliminary study of the fisheries of Sulu waters was made while on the United States Bureau of Fisheries steamer *Albatross*. Extensive dredgings were conducted over the pearl and sponge beds of this region, but the results have not yet been published.

In 1909 I spent five months in Jolo, Siasi, and Sitanki in the study of the commercial fishes and pearl and sponge fisheries. In 1914 this work was again taken up, and six months were given to a preliminary survey of the pearl and sponge beds. This survey was continued during December, 1915.

It is obvious that these reports, considering the short time given to the actual field work—less than two years—are of a preliminary nature, and some of the conclusions may be changed in the light of future and more extended investigations.

In December, 1914, at the request of the Governor of the Department of Mindanao and Sulu, I was detailed for six months to study the pearl shells, fishing banks, and other sources of sea products in that region. In December, 1915, I was detailed to proceed to Zamboanga to coöperate with the Governor of the Department of Mindanao and Sulu in preparing drafts of proposed laws for the protection of marine Mollusca and sponges. In order to do this work intelligently, a second survey, similar to the first but less extended, was necessary. Eight weeks were consumed in the latter study, and laws were prepared which were subsequently passed at the session of the Legislature on February 4, 1916.

The Department of Mindanao and Sulu includes the greater part of the old Province of Mindanao (Plate I).

My investigations were made chiefly in the vicinity of Jolo, while additional information was gathered in trips to Zamboanga, Siasi, and Sitanki and to the Pearl Bank Islands and other islands.

A report was made to Governor Carpenter on the condition of the fisheries and pearl beds. Material has been taken from this report to prepare three papers, namely: I, Food fishes and sharks; II, Pearls, pearl shells, and button shells; III, Sponges, tortoise shell, corals, and trepang. The first of these papers is presented herewith.

FOOD FISHES

The waters of the Sulu Archipelago are abundantly supplied with a great variety of food fishes, ranging from the great sea bass of over 450 kilograms in weight to the small anchovy which is put up as a red condiment to use on curry. A catch with hook and line of over 90 kilograms of fish in half a day's fishing is recorded. There should be no lack of food where the sea yields so abundantly. Probably in no part of the Philippine Islands are food and game fishes more abundant or of better flavor than in the waters of Mindanao and Sulu.

THE FISHING BANKS

Certain localities in the waters of Mindanao and Sulu, where commercial fishes are abundant, have acquired a reputation as fishing banks. Such places are Sitanki, the banks off Caldera Bay, Sibuco Bay, the vicinity of Flecha Point, and Simor, Manucmanca, Tataan, Lahatlahat, Doc Can, Malicut, and Sulade Islands. These banks are usually well known and are frequented by the Moro fishermen.

The plankton is excessively abundant on these banks, and this no doubt attracts the small fishes. The large fishes follow to feed on the small fry.

CHIEF COMMERCIAL FISHES

It would require altogether too much space to enumerate all of the food fishes that are found in the waters of Mindanao and Sulu, but the most important are the following:

The mackerel family, Scombridæ, is represented by twelve species. All of them are excellent food fishes. They usually occur in large schools and are an important part of the local food supply. The most important of this family are the chub mackerels and several species known locally as *cavallas* or *alumahan*;

the Japanese mackerel, *salay salay* or *hasa hasa*; the Spanish mackerel or king fish, known as *tangili* or *tanguingue*; and the tuna, bonito, and albacore, known as *sobad* or *tulingan*.

The pompano family, Carangidæ, is represented by forty-six species. These range in weight from the round robin or decapatus, of 1 kilogram or less, to the giant cavalla or pompano, of from 30 to 45 kilograms. The larger species are well-known food and game fishes. The herring and sardine family, Clupeidæ, local name, *tamban*, is represented by about twenty species. According to the ruling of the United States Bureau of Fisheries, any member of this family may be legally labeled a sardine. Closely associated with this family are the anchovies, *talica* or *anaebat*, family Engraulidæ, which are abundant. These are used to make the red condiment for curry.

The sea bass family, Serranidæ, which includes all the sea bass and groupers called *lapo-lapo*, *garopa*, and *cuccut*, is a very important group of food fishes. This family includes some of the best and highest priced species. They range in weight from the beautiful, blue-spotted lapo-lapo of 0.25 kilogram to the giant sea bass, *Epinephalus lanciolatus*, of 800 kilograms.

The snappers, Lutianidæ, are represented in these waters by about fifty species. The most important of these are the gray snappers, *calumbang*; the red snapper, *moamia* or *bacbaan*; the dusky snapper, *camang-buhu*; and several smaller species called *dopa* and *mangagat*. All are excellent food fishes. Closely allied in general appearance to the snappers are the porgies, *cutamboc* or *gaud-gaud*, of which there are about twenty species.

The mullets or *banac*, family Mugilidæ, are of great commercial importance in the Sulu Archipelago. Great schools of mullets have been observed in the vicinity of Sitanki Island.

The barracudas, family Sphyrænidæ, constitute another important group of food and game fishes, known to the Moros as *lumbanac* or *bagasan*. There are few fishes that excel the young barracuda as a food fish. They are common along almost all reefs in the Sulu Sea. The large species furnish excellent sport for the rod and reel.

FISHING METHODS

The Moros capture fish by means of a large corral, provided they can afford to build one; otherwise they use small nets, traps, and spears. Comparatively few large nets are in use among these people.

An improvement on these methods of fishing would be the use of the purse net. However, the cost would preclude its use by

most of the fishermen, and the amount of fish taken by such a net could not be disposed of with advantage, except perhaps at Jolo and Zamboanga. It requires an experienced crew of at least twelve men to operate a purse net.

I would advise an increase in the use of the gill net and the trammel net, with both of which I have had very good success in these waters.

THE SARDINE INDUSTRY

One hundred cans of Philippine sardines, which had been put up in the Bureau of Science, were sent to packers and to others who might be interested in this industry. The replies received regarding these samples were uniformly favorable, and the best authorities agreed that they were equal to the European sardine in every respect. The most practical way of starting this industry would be in connection with a tomato-catsup factory. Excellent tomatoes are grown here, and a catsup factory would afford a good market for tomatoes and stimulate their planting. There would then be two staple products to market—sardines and tomato catsup. Large quantities of these articles are imported each year.

The method of putting up sardines is comparatively simple; however, anyone starting a cannery without experienced help would probably encounter difficulties.

In brief, the method of preparing sardines is as follows:¹

Catch the fish.

Rinse the fish well in salt or fresh water.

Spread on tables or a clean floor and sprinkle with a little salt.

Clean by removing heads and entrails.

Place the fish in brine of sufficient strength to float a potato, where they should remain until the salt "strikes in." This will take from one-half to one hour.

Rinse rapidly in two waters to remove scales, dirt, and excess of salt.

Dry in the open air by placing the fish, tails up, in shallow wire baskets, so that water will run out of the abdominal cavity. In good weather one hour or even less is sufficient for drying. In bad weather, dry indoors.

The wire baskets full of fish should be hung up so that air may circulate freely through them.

Cook the fish in oil by immersing these wire baskets with the fish in them in boiling peanut or olive oil. They should remain in the oil about two minutes or until the tail fin breaks easily.

Hang up the baskets so that the oil will drain off, and leave until the fish are cool.

Pack the fish in tins.

Fill the packed tins with olive oil, tomato catsup, or whatever is desired; a few cloves, small peppers, or thyme may be used.

¹ *This Journal*, Sec. D (1914), 9, 10.

Solder or clamp the covers so that they are absolutely air-tight.

Immerse the cans of fish in boiling water for two hours. This cooks the fish and softens the bones.

Remove the cans from the water, allow them to cool, and rub them in dry sawdust to remove all oil from the outside.

The sardines are then ready for the market.

SALT, DRY, AND SMOKED FISH

Practically the only method used in curing fish among the Moros is by drying and salting. The fish are cleaned, left in brine until the salt "strikes in," and placed in the sun to dry. The methods now in use can be greatly improved.

During a recent inspection of the Sitanki fisheries some of the vats used in salting fish were found to be very filthy, and in many cases the brine was not strong enough. Probably this is why some of the prepared fish from Sitanki spoil so readily. An effort was made to impress upon those in charge the necessity for keeping their vats clean and trying to cure unspoiled fish only.

Methods of preparing fish in the tropics are described in one of my papers.²

PLANTING FISH IN MINDANAO

After a careful inspection of the Cotabato River system, I have advised the planting of carp in this watershed, my reasons for so doing being: (1) The obvious need for an abundant supply of cheap flesh food; (2) carp multiply so rapidly that they would soon supply the food; (3) Cotabato River is muddy and the local fish fauna poor, so no injury can result from the introduction of carp; (4) the carp is a favorite fish of Oriental people; more carp are sold in Hongkong than any other kind of fish.

A lake adapted to carp culture is located in Agricultural Colony No. 1. I advise that carp culture be introduced into this region and that Cotabato River be stocked from the lake. Additional black bass should be planted in Lake Lanao and in such other lakes as can conveniently be reached.

THE SHARK-FIN FISHERY

The returns from the shark fishery could be increased if all the products of the shark were more generally utilized.

In the northern part of the Philippine Islands nothing but the fins of the shark are saved; among the Moros certain of the sharks are used for food, but the liver and the skin are utilized

² *This Journal*, Sec. D (1914), 9, 1.

nowhere in the Philippine Islands. The liver of the shark is rich in oil, and shark skin makes excellent leather for certain uses. From it are manufactured the most expensive scabbards and coverings for sword grips, certain expensive Morocco bindings, coverings for jewel boxes, etc. The crude skin is also made into rasps for cabinet makers. A recipe for tanning shark skin was given in a previous paper.³

In some countries sharks are canned and used as food; in other countries they are manufactured into fertilizer. They seem to fill both uses equally well.

KINDS AND VALUES OF SHARK FIN

In general terms, shark fin is called white fin or black fin, although none of the fins are perfectly white or perfectly black. The so-called white fin is drab, and the black fin is dark gray. All of the fins of the shark are used for soup; they are divided into several groups of different values, depending upon the color, size, and variety. The ordinary commercial classification of shark fin and the present market values of the different classes are as follows:

Large white-spotted fin (Plate II, fig. 1).—This is the *mano-mano* of the Moros and the *boon leong sit* of the Chinese. This fin is drab with scattered white spots; the dorsal fin of this variety is from 25 to 30 centimeters high. This is the most valuable of all the shark fins, being worth 120 pesos⁴ per picul.⁵ I was told by a reliable Chinese merchant that soup made from this fin was sold for 5 dollars (Hongkong) per cup in Hongkong. It is believed to possess especially invigorating properties.

Large white fin; chu sit (Plate II, fig. 2).—The *chu sit* is similar to the *boon leong sit* in color and size, but it has no white spots. Its value is from 50 to 60 pesos per picul.

Small white-spotted fin.—This kind of fin has the same Chinese name as the large white-spotted fin and consists of fins from the small or young sharks of the same species. The value is 60 pesos per picul.

Small white fin; peh sit (Plate II, fig. 3).—This fin is drab and without white spots; its value is about 55 pesos per picul.

Small white fin (Plate II, fig. 4).—This fin is called *khiam sit* by the Chinese and *pindong* by the Moros. It is the poorest

³ *This Journal, Sec. D (1911), 6, 312.*

⁴ One peso equals 100 centavos Philippine currency, equals 50 cents United States currency.

⁵ One picul equals 63.25 kilograms.

grade of the white fins, being small, rough in texture, and valued at only 30 pesos per picul.

Large black fin (Plate II, fig. 5).—This fin is called *tua sit* by the Chinese and *tamamambojee* by the Moros. It is the largest size of the dark-colored fins. Most of the shark fins secured in the Philippines belong to this group. The best grade is worth 80 pesos per picul.

Small black fin; oh sit.—This class consists of the young and small fins of the species that yields the large black fin. These fins are valued at 12 pesos per picul.

Small black fin (Plate II, fig. 7).—This small black fin is called *seow oh sit* by the Chinese and *galambu* by the Moros. This is really a gray fin with dark margins. It is valued at 12 pesos per picul.

Small black-tipped fin (Plate II, fig. 6).—This fin is called *oh ku sit* by the Chinese and *totong* by the Moros. It is gray with a jet-black tip. Its value is 18 pesos per picul.

During 1913 the Department of Mindanao and Sulu exported shark fins valued at 17,408 pesos, and during the first four months of the present year, 1914, the fins exported were worth 7,616 pesos.

There is little labor in preparing fins for the market. The fin is cut from the body, the cut portion is well salted or dusted with lime, and the fin is dried in the sun. When dry, the fins are bailed and shipped. The chief market is Singapore; from there they are transshipped to China.

There are about thirty-five species of sharks in Philippine waters. The fins of practically all of these are of commercial value. These sharks range in size from the small dog fish, only 30 centimeters long, to the big gray sharks, which may be 6 meters or more in length. Most of the tribe are harmless in so far as attacking man is concerned, but the great gray shark, *Carcharias gangeticus* Müller and Henle, and the tiger shark, *Galeocerdo tigrinus* Müller and Henle, have evil reputations and should be avoided.

Several of the Philippine sharks take the trolling spoon freely and give excellent sport; this is especially true of the mackerel sharks.

ILLUSTRATIONS

PLATE I

Map of the Philippine Islands, showing the location of the Department of Mindanao and Sulu.

PLATE II. COMMERCIAL SHARK FINS

- FIG. 1. Large white-spotted fin (*boon leong sit*).
2. Large white fin (*chu sit*).
3. Small white fin (*peh sit*).
4. Small white fin (*khiam sit*).
5. Large black fin (*tua sit*).
6. Small black-tipped fin (*oh ku sit*).
7. Small black fin (*seow oh sit*).
8. Fin prepared for cooking.

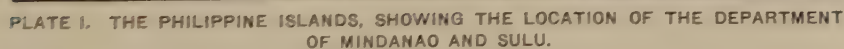


PLATE I. SEALS OF MINORAL AND SUBAL.



THE PHILIPPINE JOURNAL OF SCIENCE

D. GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

VOL. XI

JULY, 1916

No. 4

SEA PRODUCTS OF MINDANAO AND SULU, II: PEARLS, PEARL SHELLS, AND BUTTON SHELLS

By ALVIN SEALE

(From the Section of Fisheries, Biological Laboratory, Bureau of Science,
Manila, P. I.)

THREE PLATES

PEARLS AND PEARL SHELLS

Next to the food fishes the most valuable products of the Sulu Sea are the pearls and pearl shells.

During 1914 there were exported from the Sulu Archipelago 300,794 kilograms of pearl shells, valued at 349,498 pesos,¹ and pearls with an estimated value of 1,000,000 pesos.

In Japan the cultivation of the pearl oyster receives great attention, and the growing of cultural pearls gives employment to hundreds of families. There is not a single place in the Philippine Islands where the pearl oyster is cultivated. The Government has supplied information,² and a law provides for the lease of pearl farms. Here is a good practical work for the schools of the Sulu region to undertake. A school pearl farm would yield a greater revenue than a school garden, and a little information on the subject would benefit the entire Archipelago.

THE PHILIPPINE PEARL OYSTER

The Philippine pearl oyster of commerce, known to the trade as the "Sooloo mother of pearl shell" (M. O. P.), is the gold-lip pearl oyster, *Margaritifera maxima* Jameson. It is found

¹ One peso Philippine currency equals 100 centavos, equals 50 cents United States currency.

² *This Journal*, Sec. D (1910), 5, 94.

throughout the Sulu Archipelago wherever the conditions are favorable, provided that it has not been removed by human agency.

The life history of this mollusk is as follows: The female gives off thousands of small ova, the male animal gives off microscopic spermatozoa, and fertilization is left to the chance meeting of these bodies in the water. When the egg is fertilized, it becomes round and develops small cilia, which enable it to swim about. It is doubtless carried many miles by currents and tides. The shell begins to form at the end of the second day, and after about eight days the young oyster settles and attaches itself to whatever offers. The young oysters seldom move far from the place where they first become attached, although the old shells wear away the ropelike byssus and lie free on the sea bottom. They continue to grow for perhaps from ten to twelve years, although they are sexually mature in two years and attain "legal" size, that is 14 centimeters, in about three or four years. The rapidity of their growth depends largely upon their location and the abundance of the microscopic marine animals upon which they feed.

For its proper growth the gold-lip pearl oyster requires a warm, shallow sea, from 1 to 70 fathoms in depth, strong ocean currents, and water with a specific gravity of about 1.02. The bottom must be of sand or coarse gravel made up of dead coral and broken shells. One of the most prolific bottoms examined during my inspection was composed of what the diver called "mud," which was in fact very fine, sandy ooze, consisting chiefly of dead Foraminifera. This bed was covered with a short growth of eelgrass. There are many places throughout the Sulu Archipelago where these conditions exist, and the most prolific pearl beds are found in such localities.

LOCATION OF PEARL BEDS IN MINDANAO AND SULU

Practically all of the area from Mindanao to Borneo is one great pearl bed, yet the beds are more or less localized and centered about various islands. Therefore I found it convenient for the purpose of examination and reference to divide this area into ten separate groups or pearl beds as follows (Plate I):

The Jolo pearl beds.—The Jolo beds include the following: Jolo, Marongas, Pangasinan, Hegad, Bubuan, Minis, Cabucan, Pantocounan, Bancungan, Tulayan, Capual, Bitinan, Dongdong, Pata, Patian, and Teomabal Islands and the banks, shoals, and islets in the immediate vicinity of these islands. The most prolific sections of the Jolo pearl beds are the channels between

the small islands directly north of Jolo and the Jolo channel proper. These beds have been fished constantly for over one hundred years, and they still yield a fair return of shells. At the time of my inspection there were twenty-four pearling boats operating on these beds.

The Tapul pearl beds.—The Tapul pearl beds include the following islands and the small islets and shoals adjacent to them: Tapul, Bolipongpong, Siasi, Lapac, Sirun, Sulade, and Tapaan. The channel between Lapac and Tapaan Islands, and the region directly east of Tapul, seemed to afford the best fishing on these beds. Twelve pearling boats were seen operating on the Tapul beds.

The Tawi Tawi pearl beds.—The Tawi Tawi pearl beds include the following: Tawi Tawi, Maniacolat, Bubuan, Cacataan, Sigboye, Tambagaan, Simaluc, Kuadbasang, Basbas, Tataan, Bongao, Simonor, Manuc-manca, South Ubian, Tabawan, Bintoulán, Kinapusan, Magpeos, and Tagao Islands and the numerous small islands and reefs south of Tawi Tawi.

These beds probably comprise the richest pearling grounds in the entire Archipelago. Twenty-one Moro pearlingintas were seen operating their dredges on beds near Magpeos Island. No pearling luggars were seen. A number of the above islands have large Moro populations, which are regarded with considerable fear by the pearl-ers. On South Ubian Island alone I counted two hundred Moro houses in the village. Many of these people are engaged in primitive pearl fishing.

The Sibutu pearl beds.—The Sibutu pearl beds include the islands, reefs, and shoals west of Sibutu Passage. These beds have not been properly prospected, and very little is definitely known about them. A few years ago some shells were discovered in the vicinity of Perdrie Patches, and occasionally some pearl shells are brought into Sitanki by the Moros. In 1908 I prospected the large lagoon south of Sipanket, but without success. However, it is probable that some rich beds will eventually be located near Sibutu.

The Laparan pearl beds.—The Laparan pearl beds include the numerous small groups of islands which for the most part lie well northward in the Sulu Sea. These comprise the twenty or more islets known as the Pearl Bank Islands, also the following islands and the adjacent banks, islets, and reefs: Laparan, Doc Can, Deatobato, Cap, Sipang, Tubalubac, Dammi, Dasaan, Lahatlahat, Bambannan, Mamanuc, Billangan, and Tagbabas. These beds still contain many pearl oysters, and they could sustain the operation of a large portion of the pearling fleet without damage.

From the deck of the revenue cutter *Gilbert* I counted six large pearl oysters on the bottom while we were anchored in 12 fathoms on the east side of Lahatlahat Island. Only three pearling boats were observed operating on the Laparan beds.

The Pangutarang pearl beds.—The Pangutarang pearl beds include the following islands and the adjacent islets, shoals, and intermediate waters: Pangutarang, North Ubian, Malicut, Basbas, Cunilan, Usada, Ticul, Panducan, Kulassein, Tubigan, and Teomabal. One of the richest pearl patches ever discovered in the Philippines was located on these beds a short distance east of Basbas Island. No pearling boats were seen on the Pangutarang beds, but several Moro dredges were in operation.

The Pilas pearl beds.—The following islands and the adjacent islets, shoals, and intermediate waters constitute the Pilas pearl beds: Pilas, Manangal, Palajangan, Mamannak, Pasigpasilan, Salkulakit, Lakits, Kaludlud, Dassalan, Sangboy, Pabunuan, Teinga, and Favorite Bank. Some years ago a Zamboanga pearler took a vast number of shells from these beds, and their recovery from this overfishing has been very slow. Three pearling boats were operating on the Pilas beds with but poor success.

The Samales pearl beds.—In the Samales beds are included all of the islands in the Samales, Tapiantana, and Bolod Groups and the intermediate waters, islets, and shoals from Salupin Island on the east to Manungut on the west. The principal islands are: Manungut, Bangalao, Simisa, Balanguingui, Mamanoc, Parol, Tonquil, Bulan, Memad, Dipolod, Tatalan, East and West Bolod, Lanahuan, Tapiantana, Bubuan, Timbungan, and Salupin. The Samales beds are very prolific and are constantly worked by the pearlers. Within the past few years some very rich patches of pearl-shell beds have been found here.

The Basilan pearl beds.—The Basilan beds include the shore line of Basilan and the adjacent islands of Malamaui, Lampinigan, Balukbaluk, Teingalaguit, Tengolan, Mataja, Odel, Teipono, Tamuk, Cancuman, Lahatlahat, Bihintinusa, Kauluan, Coco, Sibago, and Lanhil. The yield of shells from the Basilan beds was exceptionally large during July and August, 1914, and a portion of the pearling fleet has been operating on these beds with considerable success.

The Mindanao pearl beds.—The waters surrounding the great island of Mindanao have not been well prospected for pearl beds, and with the exception of the well-known pearling ground in Basilan Strait and in Pakoputin Strait, Davao Gulf, very little is known regarding the Mindanao beds. Therefore I have in-

cluded all of the beds adjacent to the coast of Mindanao in one group; later it may be convenient to subdivide it into smaller groups.

PRESENT CONDITION OF PEARL BEDS

The Jolo pearl beds have been fished more persistently and for a longer period than any of the other beds in the Philippines, and one would rather expect to find them in an exhausted condition. However, numerous young shells of various sizes were found on these beds, and the following account of actual diving operations will illustrate the condition in regard to adult shells.

On May 23, 1914, I was on board the pearler *Eng Lee*, which was operating near the center of Jolo Channel, directly in front of the town of Jolo. The diver, a Filipino mestizo, made three dives of twenty minutes each during the morning, in a depth of 17 fathoms. For the first dive twelve large, fine shells were secured; for the second dive, seven; and for the third dive, seven; a total of twenty-six shells for sixty minutes of actual work. The weight of these shells, cleaned, was 26 kilograms, an average of 1 kilogram per pair. The Tawi Tawi and Laparan beds are in good condition and could be worked at a profit by the pearlers, there being many adult shells even in water of not over 14 fathoms. Shells are especially abundant in the vicinity of Lahatlahat Island, and there are several places near South Ubian that were reported to me as rich in shells. There is a fair growth of young shells on these beds.

In the vicinity of Bongao some valuable pearls have recently been found; these beds have quantities of young shells and are in good condition.

The Tapul beds have been fished persistently during the past year, and a good yield of shells and some valuable pearls have resulted. There are still many shells on these beds, but for the most part in waters too deep for safe diving.

The Pangutarang beds, being for the most part in shallow water, have in many places been overfished, and while there are doubtless rich patches to be found, very few either adult or young shells were located.

The Pilas beds also have been overfished, and only a very few scattered shells are to be found. An entire day's work with a pearling lugger yielded but six shells; the second day's work yielded but ten shells. The Samales beds have yielded many shells and pearls during the past year and will probably continue to give fair results for years to come. Large patches of dead shells have occasionally been found on these beds. They were

probably buried and smothered in the sand during a storm and later uncovered by the currents or by a second storm.

The Basilan beds were the scene of great activity during July, 1914, a new bed, very rich in shells, having been discovered during May, 1914. However, it is a well-known fact that the Basilan shells are usually a little poorer in grade than shells from other beds, a condition probably due to the very soft bottom on which they grow. I have not yet been able to examine either the Basilan or Mindanao beds. However, I examined some valuable pearls taken from the Mindanao beds during 1914.

After dredging on the various pearls beds, recording many diving operations, and gathering information from numerous divers and owners, I have concluded that the pearl beds of the Department of Mindanao and Sulu are in no immediate danger of exhaustion. It would be advisable to rest the Pilas and possibly the Pangutarang beds for three or four years. However, I doubt if any regulation regarding the matter is necessary, because the fishing does not pay expenses, and this will prevent fishing more effectually than any law.

The shallow-water beds in some cases have not been exhausted after over one hundred years of fishing. The explanation of this lies in the fact that they are constantly supplied with young shells from the adjacent beds, "pockets," or mother shells, which have been overlooked or lie in water too deep for the divers. This I know to be the case in the Jolo beds, and no doubt it is true of the others. All of the pearl beds are surrounded by areas of deeper water, and many of the divers tell of seeing large quantities of shells in waters too deep to work. These and the overlooked pockets and scattered, adult shells are the "mother shells," and from them are given off each season millions of young pearl oysters, which are carried by the tides and currents all over the waters of the Archipelago. Many settle on the shallow beds and keep a constant supply of oysters growing toward maturity. No doubt some are carried into great depths and lost, others are smothered in the sand or thrown ashore and die on the beach, but as each female oyster produces several million eggs each year, many survive, and in this manner the shallow-water beds are supplied continuously with shells. I believe that no amount of fishing with the present system of hand pumps, whereby the diver is limited to a depth of about 25 fathoms, will ever fully exhaust these beds. Probably the greatest danger to the Philippine pearl beds lies in the introduction of motor-driven diving equipment that will enable the deep-water beds to be fished.

Rotation in working the pearl beds would be a great advantage, as in this manner they would be more thoroughly prospected and the old and wormy shells would be removed, thus giving a yield of clean, first-class shells every five or six years. But the revenues derived by the Government from this industry will not warrant the expenditure necessary to pay the patrol required to watch ten great beds and prevent poaching. I believe that it would be expedient to divide the entire area into two parts, with the north and south dividing line passing through Jolo, 121° east longitude, and then, alternately, to close one half of the entire area for six years. The dividing line could be watched from Jolo at small expense. This scheme would be to the advantage of both the Government and the pearlers, in as much as many more beds would be found, and after a period of twelve years the grade and, therefore, the price of the Philippine shells would be distinctly better.

I was unable to locate any particular place where the pearl beds had been excessively injured by natural enemies such as rays, skates, and other fishes. However, on some of the beds, notably at Jolo and Pilas, there were numerous starfishes, and these undoubtedly devour many of the young oysters.

CULTURAL PEARLS AND PEARL FARMING

The Japanese are the only people who have made a commercial success of growing cultural pearls. The method is to insert some foreign body into the shell of the living oyster; this body is covered by layers of pearly nacre, and thus forms the cultural pearl. However, the method of growing quantities of round pearls of as good a luster and shape as those found in nature was perfected only during the past two years by Professor Fujita, of the Imperial University at Tokyo. I submitted some of these pearls to jewelers in Manila, and they were unable to distinguish them from natural pearls.

DESCRIPTION OF THE INTENDED EXPERIMENT OF PEARL PRODUCTION IN THE PHILIPPINE ISLANDS³

Originally the term "culture pearl" was applied by Mr. Miki-moto to a hemispherical blister formed over a foreign body artificially inserted between the shell and mantle of a pearl oyster.

³ We are fortunately able to include under this heading some comments on the production of cultural pearls, which were kindly furnished by Professor Fujita himself.—EDITOR.

These artificially produced blisters are cut off from the shell and used as half pearls. Mr. Mikimoto is the first person who tried to apply this method, which has been practiced in China for several hundred years with fresh-water mussels, to the Japanese pearl oyster, *Margaritifera martensi* Dunker. His success was remarkable, resulting in a large culture farm which supplies the world with about 300,000 yens' worth of culture pearls annually.

His next effort was to improve this culture-pearl method and to produce free, perfectly round pearls. This was rewarded with some degree of success. By a modification of his culture-pearl method, free round pearls are produced; but the method is not reliable, as many operations are required to produce a very small number of free pearls.

In about 1905 Dr. P. Nishikawa, a graduate of the zoölogical department of the Tokyo Imperial University and an expert of the Imperial Fisheries Bureau, discovered a new method of producing free round pearls by pearl-producing mollusks. By this method, which is based upon a totally different principle from that of Mikimoto's, the number of pearls produced is usually from 20 to 50 per cent of the number of operations. He could not see the final result of his own method because of his much lamented death in 1909, although many young pearls were already produced. The experiment was taken up by Fujita after 1908, and some necessary improvements were made; while Mr. S. Nishikawa, junior brother of the late Doctor Nishikawa, working upon a practical basis with his brother's method in his private pearl-culture farm, also accomplished some very remarkable improvements.

The pearls produced by this method, the "Nishikawa method," are free round pearls not distinguishable from natural ones. By several modifications of the method pearls of different structures also can be produced, besides pearls with a structure identical with a natural one in every respect.

As the result of the experiment with the common Japanese pearl oyster is satisfactory to some degree, the method was extended by Fujita to the so-called black-lip pearl oyster, *Margaritifera margaritifera* Linnæus, in southern Japan. The result was satisfactory to some degree.

As the logical sequence of the experiments above described, it is of not a little interest to science and marine industry to test this method with the large gold-lip pearl oyster, *Margaritifera maxima* Jameson. Although the experiments with the Japanese pearl oyster and the black-lip pearl oyster are satis-

factory to a certain degree, there still remains very much to be done before the method can be called very efficient. These necessary experiments can be done only with the gold-lip pearl oyster.

There are two advantages which invite the application of the method to the gold-lip oyster. They are:

1. The large size of the gold-lip shell. A full-grown Japanese pearl-oyster shell is about 7 or 8 centimeters in height and length and only 3 or 4 millimeters in thickness. These figures show how small the Japanese pearl-oyster shell is compared with that of the gold-lip pearl oyster and indicate the difference of the nacre-secreting capacity of the corresponding organisms.

2. The period of nacre-secreting activity. By experiment with the Japanese pearl oyster I have been able to prove that the nacre-secreting function is active from June to November when the temperature of sea water is about 17°C. In the remaining months it is practically at rest, although there is a very slight degree of nacre secretion. In the warm tropical waters it is probably never at rest while the organism is in healthy condition. My experiment with *Margaritifera margaritifera* Linnæus in Pelew Island, West Carolines, in February, 1915, has proved that the nacre secretion was active at that time.

This is the present state of the problem of artificial pearl production in Japan and the reason which urged me to attempt the present scientific trip to the Philippine Islands.

My plan for the intended experiment here is as follows, provided that the necessary permission is granted by the Government:

To get young, live specimens of *Margaritifera maxima* having a nacre measurement of about 10 centimeters height. This is the most, if not the only, convenient size to work with. After these oysters have been operated upon in a proper way, they will be kept alive in the sea, either scattered over the bottom or suspended in wire baskets some distance above the bottom. From time to time a number of these operated oysters are to be taken out and opened to see the result of the operation.

On the other hand, it is very important to ascertain whether it is possible to collect very young spats of *Margaritifera maxima* and to rear them to full-size, adult animals, protecting them from devouring enemies and adverse circumstances by some suitable device, in order to secure the constant supply of the material to work upon in future.

For the purpose of carrying out the scientific experiment relating to the artificial pearl production by *Margaritifera max-*

ima Jameson as described in the accompanying paper, I request the special permission of the Government for the following two items:

1. To fish one thousand five hundred young *Margaritifera maxima* Jameson of less than the standard size.

2. To keep the operated *Margaritifera maxima* in the sea as indicated in the accompanying chart ⁴ and to close this area for molluscan fishery.

AMOUNT AND VALUE OF PEARL SHELLS EXPORTED FROM THE DEPARTMENT OF
MINDANAO AND SULU

During the year 1913 ⁵ 296,726 kilograms of gold-lip pearl shells, valued at 329,140 pesos, were exported from Jolo, and for the same period 4,068 kilograms, valued at 20,358 pesos, were exported from Zamboanga, a total from the Department of Mindanao and Sulu for 1913 of 300,794 kilograms, valued at 349,498 pesos. In 1907 the amount of these shells exported from Moro Province was 189,720 kilograms valued at 164,399 pesos. There is no record to show the value of the pearls taken, but I have been informed on reliable authority that more than 1,000,000 pesos were handled by the local banks in payment for pearls in 1913. During three months (June to August, 1914) of my inspection trip I examined eight pearls taken during that period, the total value of which was 20,000 pesos. In addition, many small pearls were secured. It is well known that the Philippine beds yield a far greater percentage of pearls than the Australian or Celebes fisheries, but as no accurate records are kept regarding their number or value, it is obviously impossible to give more than this rough estimate.

In addition to numerous local dealers in pearls, there are three pearl buyers from Paris who make their headquarters in Jolo. All seem to be doing a reasonably good business.

The price of pearl shells at the present time is from 60 to 90 pesos per picul,⁶ depending on the grade.

THE PEARLING FLEET

In 1914, when I attempted to prepare a detailed list of the pearling boats, I found that several official lists were kept. The two most important of these are in the hands of the treasurer

⁴ No copy of the chart was furnished with the manuscript.—EDITOR.

⁵ From reports kindly furnished by the Collector of Customs at Jolo and at Zamboanga.

⁶ One picul equals 63.25 kilograms.

and of the collector of customs of Jolo, respectively. There were fifty-seven licenses in force in the district of the treasurer of Jolo and sixty-one pearling boats operating according to the list of the collector of customs. Boats were recorded on each list which were not on the other; that of the collector of customs contained the names of ten boats not on the treasurer's list. After comparing all available official records, actually counting as many of the boats as possible, eliminating wrecked boats and those having only dead licenses, and including seven boats operating under licenses issued at Zamboanga, I have prepared the following list of seventy-three boats which represents the entire pearling fleet:

Pearling boats owned by Americans. Total, 2.

Boat.	Owner.
1. Gregorio	H. McLain.
2. Gwendolyn	J. Maddy.

Pearling boats owned by Arabs. Total, 2.

Boat.	Owner.
3. Al Masauat	Abu Bakar.
4. Stamboul	Said Bakar.

Pearling boats owned by Chinese. Total, 2.

Boat.	Owner.
5. Alice Holmes	To Seock.
6. Dayang Dayang	Ong Tiam Tong.

Pearling boats incorporated as the Pearl Fishing Company, Incorporated, which is for the most part owned by Ong Tiam Tong and Tandico. Total, 13.

7. Cebu.	14. Victoria.
8. Dogmar.	15. Siasi.
9. General Wood.	16. Eng Lee.
10. Helena.	17. Admiral Dewey.
11. Iloilo.	18. Cherry.
12. Manila.	19. Betty Pickle.
13. Serena.	

Pearling boats owned by Moros. Total, 7.

Boat.	Owner.
20. Paduka	Sultan of Sulu.
21. Malona	Do.
22. Yabloogal	Hadji Gulam.
23. Rajah Loud	Hadji Butu.
24. Pangian	Daughter of Sultan of Sulu.
25. Patrol Bab (Potchbop)	Moro Kumbu.
26. Lily	Jahaila, wife of Schuck.

Pearling boats, owners unknown, but operating through the Jolo custom-house and not on treasurer's list. Total, 5.

- | | |
|-------------------|-------------------------|
| 27. Morin. | 30. Tom Sego. |
| 28. Sri Pangan. | 31. N. S. de Esperanza. |
| 29. South Island. | |

Pearling boats owned by Japanese. Total, 2.

- | Boat. | Owner. |
|--------------|-----------|
| 32. Mayon | Hama. |
| 33. Mindanao | Malamoto. |

Pearling boats owned by Sulu Pearling Company (all Japanese). Total, 31.

- | | |
|-----------------|-------------------|
| 34. Tenyo. | 50. Akebono. |
| 35. Panama. | 51. Jolo. |
| 36. Cleopatra. | 52. Maritana. |
| 37. Reina. | 53. Satsuki. |
| 38. Alfonso. | 54. Sulu. |
| 39. Tubigan. | 55. Angelita. |
| 40. Kumano. | 56. Three Cheers. |
| 41. Seiriki. | 57. Zamboanga. |
| 42. Bantayan. | 58. Alexandra. |
| 43. Isabela. | 59. Togo. |
| 44. Tulian. | 60. Catharine. |
| 45. Nautilus. | 61. Shunyo. |
| 46. Washington. | 62. Toyo. |
| 47. Rene. | 63. Basilan. |
| 48. Koun. | 64. Nema. |
| 49. Totsuki. | |

Pearling boats owned by Ohta Development Company.

[All Japanese.]

No.	Name.	Built.	Masts.	Diving gear.
65	Takachiue	Zamboanga, 1913.....	2	Heinke, type B, compressor set, 10-horsepower kerosene engine.
66	Rosario	do	2	Heinke, 3-throw hand pump.
67	Kii	do	2	Japanese pump.
68	Marie N.	do	2	Heinke special, Darnley pump.
69	Cagayan	do	1	Japanese pump.
70	Albay	do	2	Heinke, 3-throw pump.
71	Paragua	do	2	Do.
72	Happay	Zamboanga, 1914.....	2	Seibe-German pump.
73	Daishe.	Jolo, 1912	2	Heinke, 3-throw pump.

The difficulty of ascertaining the actual number of boats in operation is shown by the following:

On April 14, 1914, the attorney for the Sulu Pearling Company gave me a list of twenty-nine boats belonging to this

company. On May 5, 1914, a Japanese member of the company gave me a list which showed the number of boats as thirty-one. The actual number of boats operating through the Jolo custom-house that claim to belong to this company is thirty-five. When I visited these boats and asked each capatas who owned the boat, each gave the name of the individual Japanese and not one gave the Sulu Pearling Company as owners. I quote the following from a local newspaper:

The Ohta Development Company have combined with the Sulu Pearling Company, taking over the latter company which gives the Ohta Development Company 46 pearling boats.—*Mindanao Herald of May 23, 1914.*

COST OF OPERATING A PEARLING BOAT

Statements of the cost of operating a pearling boat were secured from most of the principal pearlers. These statements ranged from 250 to 450 pesos for one month.

Average cost of operating a pearling boat.

Item.	Per month.	Per year.
	<i>Pesos.</i>	<i>Pesos.</i>
5 sailors, at 17 pesos.....	85	1,020
1 tender	40	480
1 diver.....	^a 20	240
License for 3 months.....	^b 25	300
Subsistence	65	780
Overhead expense.....	140	1,680
4 dresses		360
2 pipes		140
Lost anchors and chains		200
1 coil rope		90
Half cost of sails		150
Interest, 10 per cent on 5,000 pesos.....		500
Depreciation, 5 per cent.....		250
Total		^c 6,190

^a Plus 8 per cent of the shell.

^b For three months.

^c One pearler insisted on adding the following: Loss of advance, 350 pesos; burial expenses, 100 pesos; and loss of time.

The amount paid to the diver is from 20 to 40 pesos per month, with from 8 to 10 per cent of the shells as a bonus. Some owners pay 300 pesos extra for each ton of shells, some pay 20 centavos extra for each shell, some allow the diver 10 pesos per picul for shells and 10 per cent of the pearls. Almost all allow a share in the pearls, ranging from 7 to 12 per cent. All are allowed

advances ranging from 1 to 400 pesos. The great majority of the divers are Japanese.

Two of the pearling boats have recently been equipped with the Hinkey motor-driven air pump, which lowers the cost of operation as compared with the amount of shells taken. These air pumps seem to give perfect satisfaction and certainly increase the factor of safety. The cost of operating the boats with motor-driven pumps is given as 370 pesos per month. They secure more shells.

If the average expense of operating a pearling boat is 300 pesos per month, or 3,600 pesos per annum, the fleet of seventy-four boats expends 266,400 pesos per annum and must earn this amount to clear expenses.

The value of a fully equipped pearling boat is between 2,000 and 8,000 pesos; at an average value of 4,000 pesos the entire fleet is worth 296,000 pesos.

Captain Duncun, who was recently in the Philippine Islands investigating the pearling industry for the Clark Company of Australia, told me he was satisfied that the pearlers were making a fair profit and that his company would like the privilege of bringing in twelve new pearling boats for which they would gladly pay the 300 pesos license in advance, and abide by the law.

One serious phase of the pearl fishery is the high mortality among the divers, which amounted to nine during 1913, and seven up to May 4, 1914. The chief causes seem to be inexperience and ambition to work in deep water. Some means should be devised for correcting these harmful conditions. The owners warn the divers against working in deep water, but the admonitions seem to do no good.

ADMINISTRATION OF THE PEARLING FISHERIES

The old pearling law, Act No. 51 of the Legislative Council of Moro Province, has been a failure; except in as much as it has protected the undersized shells, it has benefited the Japanese only and enabled them to maintain control. The law protected *Margaritifera margaritifera*, which is not the common Philippine pearl oyster, so that the real Philippine pearl oyster, *Margaritifera maxima* Jameson, technically had no protection at all. I believe that the new law (Act No. 2604 of the Philippine Legislature) will correct these defects.

LAW PROTECTING MARINE MOLLUSCA¹

THIRD PHILIPPINE LEGISLATURE, }
Fourth Session. }

{ C. B.
{ No. 379.

[No. 2604.]

AN ACT FOR THE PROTECTION OF MARINE MOLLUSCA.

By authority of the United States, be it enacted by the Philippine Legislature, that:

SECTION 1. Marine Mollusca, or the shells of such, may be taken without restriction from any open bed, bank, shell field, or other breeding place for shellfish in Philippine waters by any person operating without the use of boat, submarine dredge, rake, or submarine armor. Likewise marine Mollusca whose shells have a value of less than twenty-five pesos per ton may be taken from any open bed, bank, or place by means of any device whatever. The taking of marine Mollusca in Philippine waters under other conditions may be lawfully conducted only under license or permit issued in conformity with the provisions of this Act and subject to restriction and regulation as hereinafter provided.

SEC. 2. Licenses for taking marine Mollusca, or the shells of such, shall be issued and the license fees collected by the Collector of Internal Revenue or his deputies to run for the remainder of the calendar year following the date of issuance. Fees derived therefrom shall accrue to the provincial treasury of the province where the same are collected. During the vitality of such license, the holder may take marine Mollusca anywhere in Philippine waters.

SEC. 3. A license, to be known as the pearling-boat license, may upon payment of the proper fee be issued to any vessel whose registration or ownership is such as is prescribed for vessels engaging in the Philippine coastwise trade.

A pearling-boat license shall not be issued to any vessel owned or operated in whole or in part by a person who has been twice convicted of violating provisions of this Act.

SEC. 4. The Secretary of the Interior shall from time to time prescribe the fee to be paid for the pearling-boat license, or a scale of fees graduated according to the character or capacity of the vessels to be licensed, and shall announce the same in an order which shall be published at least sixty days before becoming effective. Such fee shall in no case be in excess of four hundred pesos per annum, and may be paid quarterly in advance, in the manner prescribed for, and subject to the same penalties for delinquency as fixed internal revenue taxes under Act Numbered Twenty-three hundred and thirty-nine.

SEC. 5. A license, to be known as the first-class shell-diver's license, authorizing the holder to use submarine armor in taking marine Mollusca in Philippine waters, may be issued by the Collector of Internal Revenue or his deputies to any person upon the payment of the required fee.

A first-class shell-diver's license shall not be issued to any person who has been twice convicted of violating provisions of this Act.

¹ *Official Gazette*. Manila (1916), 14, 440. This Act as printed contains minor typographical errors, which have been corrected in this reprint.

SEC. 6. The fee for this license shall be ten pesos per annum, payable in advance.

SEC. 7. It shall be unlawful for any vessel holding a pearling-boat license to employ any unlicensed diver.

SEC. 8. Every licensed vessel shall keep a daily record of the number of shells taken each day. Such record shall be examined and verified by the Collector of Customs or by any internal revenue officer at any port where the owner or master of the vessel may desire to ship, sell, or otherwise dispose of the shells aboard; and no owner or master of any vessel shall discharge shells or otherwise dispose of the shells aboard without inspection by such officer. When the shells have been inspected, the officer shall note the fact in the vessel's log or record book.

SEC. 9. No person employed on a boat engaged in pearl fishing shall open any shell of the pearl oyster of the species *Margaritifera maxima* without the permission of the owner or lessee of the boat.

SEC. 10. When in his opinion the public interest shall so require, the Secretary of the Interior may, by public order, close, either absolutely or qualifiedly, any bed, bank, shell-field, or other breeding place for shellfish in Philippine waters, for any period not exceeding five years. During such closure it shall be unlawful for any person to take therefrom marine Mollusca, or the shells of such, of any prohibited class or to fish for the same therein contrary to the terms of such order.

SEC. 11. The Secretary of the Interior shall fix minimum sizes for the shells which may be taken in Philippine waters of any or all of the following species, to wit: *Margaritifera maxima*, commonly known as the gold-lip pear shell or "concha blanca;" *Trochus niloticus* Linn., commonly known as the "simong" or "trocha;" *Turbo marmoratus* Linn., commonly known as the "bolalo" or "turban shell;" *Margaritifera margaritifera* Linn., commonly known as the black-lip pearl shell or "concha negra." After such restriction shall have been imposed, it shall be unlawful for any person to take, sell, transfer, or have in possession for any purpose any shell or valve of a smaller size than the minimum prescribed for the particular species; but if any such shell should be removed from the water through accident, or in ignorance of its size, no penalty shall be imposed if it be returned to the water immediately without being opened.

SEC. 12. It shall be unlawful for any person to ship or export from the Philippine Islands, or to attempt to ship or export therefrom, the shells of any species mentioned in the preceding section, unless exportation is properly effected through the customhouse at a port of entry.

SEC. 13. The Secretary of the Interior shall have the power, and it shall be his duty, to impose such restriction upon the number of licenses which may be issued for the taking of marine Mollusca in Philippine waters, or upon the number of licensees who may be allowed to operate therein, as shall comport with the requirements of the public interest. A regulation or order imposing such restriction may extend to one or more species and may be made generally applicable in all Philippine waters or be limited to a particular marine area, or areas, therein. The Secretary of the Interior may also cause any application for license to be refused, or order the cancellation of any license, when in his opinion the public interest so requires. The action of the Secretary of the Interior under this section shall be final.

SEC. 14. The Secretary of the Interior may issue special permits to

unlicensed persons authorizing them to take marine Mollusca of any kind or size for scientific purposes or for propagation, subject to such restrictions as he shall prescribe.

SEC. 15. Nothing contained in this Act shall be construed to prohibit the taking of marine Mollusca, or the shells of such, of proper size by naked divers using the customary native boats, rafts, rakes, or dredges in open places.

SEC. 16. The Secretary of the Interior shall make such regulations as shall be necessary for carrying into effect the provisions of this Act, and the Collector of Internal Revenue shall cause a copy thereof to be furnished to each licensee.

SEC. 17. Any person who shall take marine Mollusca, or any shell or valve thereof, in Philippine waters contrary to the provisions of this Act or otherwise violate any provision hereof shall be punished by a fine of not more than one hundred pesos or imprisonment for not more than one month, or both; and if the offense consists in the taking, selling, or transferring of undersized shells of the species *Margaritifera maxima*, or the having of such in possession, the offender shall be fined five pesos for each valve of any shell the subject of the illegal act.

SEC. 18. With the approval of the Secretary of the Interior, the Collector of Internal Revenue may at any stage compromise any case arising under the provisions of this Act.

SEC. 19. The term "Philippine waters," as used in this Act, includes all marine waters pertaining to the Philippine Archipelago, as defined in the treaties between United States and Spain, dated respectively the tenth of December, eighteen hundred and ninety-eight, and the seventh of November, nineteen hundred.

SEC. 20. The term "open," as used in this Act applies to beds, banks, shell-fields, and areas in Philippine waters which have not been brought within the operation of an order of closure promulgated by the Secretary of the Interior pursuant to section ten hereof.

SEC. 21. This Act shall take effect upon its passage.

Enacted, February 4, 1916.

IMITATION PEARLS SOLD IN THE PHILIPPINE ISLANDS

Persons desiring to purchase Philippine pearls should be cautious in parting with their money, for in certain sea ports fraudulent pearls are sold that are merely beads cut from the shells of various mullusks. These "pearls" are of a great variety of colors—red, pink, black, gray, yellow, white, and variegated. The prices asked for them depend apparently upon how prosperous the buyer appears to the vender.

It is well known that all true pearls consist of concentric layers of material around a definite center, a fact that makes the pearl the most difficult of all gems to imitate successfully.

I have made microscopic examinations of thin sections of many kinds of these "pearls," and all of them proved to be shell beads. The first one examined was a fine "red pearl," which the vender assured me came from a triton shell and was a true

pearl. The triton shell is red on the inside and has been known to yield red or pink pearls of value. This "pearl" proved to be a bead cut from the large pearl shell, filed round, stained red, and polished. These red "pearls" were very pretty, ranging in color from pale pink to dark coral red. In size they were usually equal to a very large pea; some were much smaller. Their true value is perhaps 5 centavos each, the prices asked are from 4 to 8 pesos. One jeweler paid 25 pesos for a small lot, believing them to be true triton pearls as stated by the vender.

Another "pearl" examined was a large black one, which the vender assured me came from a pinna shell. The pinna shell is black on the inside and is known to produce black pearls. This black "pearl" also proved to be a piece of shell made into a bead, stained black, and polished. Like the red "pearl" it failed to show any concentric formation, the shell layers extending straight through, instead of around, the central point. These black "pearls" are usually the size of a pea or smaller. They are almost perfectly round, are jet-black, and have a fine polish. Their value is perhaps 3 centavos each; the price asked ranges from 4 to 100 pesos.

Among the fraudulent varieties of so-called pearls there are at times small dark gray or blackish pearls which are more or less flattened and lack the jet-black luster and perfect shape of the so-called black pearls. These are true pearls, probably secured from pinna shells, and possess some small value. They may be easily distinguished from the false pearls by their color and shape. Very small round pearls of a golden luster are secured from a small avicula that has a beautiful golden luster on the inside. The avicula shell is usually less than 6 centimeters in diameter, and I have never seen a pearl produced by this shell that was larger than a number 6 shot. The big, perfectly round yellow pearls offered for sale are usually frauds.

The strombus shell (*tacloban*) produces pearls that are like small china marbles—white, without luster, and of little value—although they are usually of good shape. I have seen specimens larger than pigeon eggs.

THE TOP SHELL AND TURBAN SHELL FISHERIES

The top shell, *Trochus niloticus* Linnæus, and the turban shell, *Turbo marmoratus* Linnæus, are of primary importance in the manufacture of buttons. Locally the top shell is known as the "trocha," or *chin leh*, the turban shell as the "green snail," *turbo*, or *tua leh*. These shells are fairly well described by their

names; the top, or trochus, shell is shaped like a boys' top, and the turban, or green snail, shell is turban-shaped and much larger than the top shell.

There are many places in Sulu waters where these shells are found in abundance. Davao Gulf, the east coast of Mindanao, Tawi Tawi, and Sitanki are well-known fisheries. Wherever there is a good reef or a shore with large rocks, one or both of these shells can usually be secured either by wading along the reef or by naked diving in water of from 1 to 4 fathoms.

The fishermen use these animals for food, and as a result many of the shells are spoiled either by the dry heat or by the hot water, which are employed to extract the animal from its shell. The shells should not be heated, but should be buried in sand for a month and then washed in the sea. Shells cleaned in this way retain their luster and bring the highest price.

HABITS AND LIFE HISTORY

Both the trochus and the turbo are shallow-water shells and are capable of moving about for a considerable distance. Their food consists chiefly of sea moss and other vegetable matter.

The animal reaches maturity in three years. The shell of an adult trochus is about 9 centimeters across the base. An adult turbo is 10 centimeters in diameter on its bottom surface. Very little is known about the early stages of growth of either of these important species. No serious attempt has ever been made to cultivate them artificially, but I have kept them alive in an aquarium for three months. It is possible that both shells could be profitably cultivated provided that a sufficiently confined space with a good food supply could be found. Because of the increasing value of these shells, experiments in actual cultivation would be a most practical matter.

VALUE OF THE SHELLS

Trochus shells at the present time are valued at 28 pesos a picul (63.25 kilograms) ; in 1909 the shells were valued at from 9 to 10 pesos a picul.

During 1913, 253,395 kilograms of trochus shells, valued at 103,125 pesos, were exported from the Department of Mindanao and Sulu, and during January, February, March, and April, 1914, 85,299 kilograms, valued at 32,969 pesos, were exported.

The turban, or green snail, shell is valued at 26 pesos per picul. During 1913, 65,035 kilograms, valued at 21,860 pesos, were exported from Jolo and Zamboanga. During the first four months of 1914, 7,778 kilograms, valued at 3,127 pesos,

were exported. The greater portion of the shells are sent to Singapore, where they are transshipped.

The rapid increase in value of these shells is due to the increased demand from Japan and the establishment of the second large button factory in Manila.

Large quantities of the young shells, especially of the trochus, have been gathered; in fact, the factories of Japan prefer the small shells, as their machinery is not adapted to use large shells.

The present law (Act No. 2604) is intended to protect the immature shells, and it is now illegal to take trochus shells less than 8 centimeters across the least diameter of the base^a or to take turban shells less than 9 centimeters across the base.

^a The "rough form" of trochus shells of 7 centimeters may be taken.

ILLUSTRATIONS

PLATE I

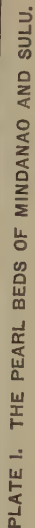
Map, showing the location of the pearl beds of Mindanao and Sulu. (Drawn in the Bureau of Science from Coast and Geodetic Survey charts 4200 and 4722.)

PLATE II

The gold-lip pearl oyster, *Margaritifera maxima* Jameson.

PLATE III

a, a young specimen of the turban shell, *Turbo marmoratus* Linnæus; *b* and *c*, two views of an adult turban shell; *d*, a top shell, *Trochus niloticus* Linnæus, cut through the vertical plane; *e* and *f*, two views of a top shell; *g*, a top shell, showing cuts made for buttons in the partition walls.



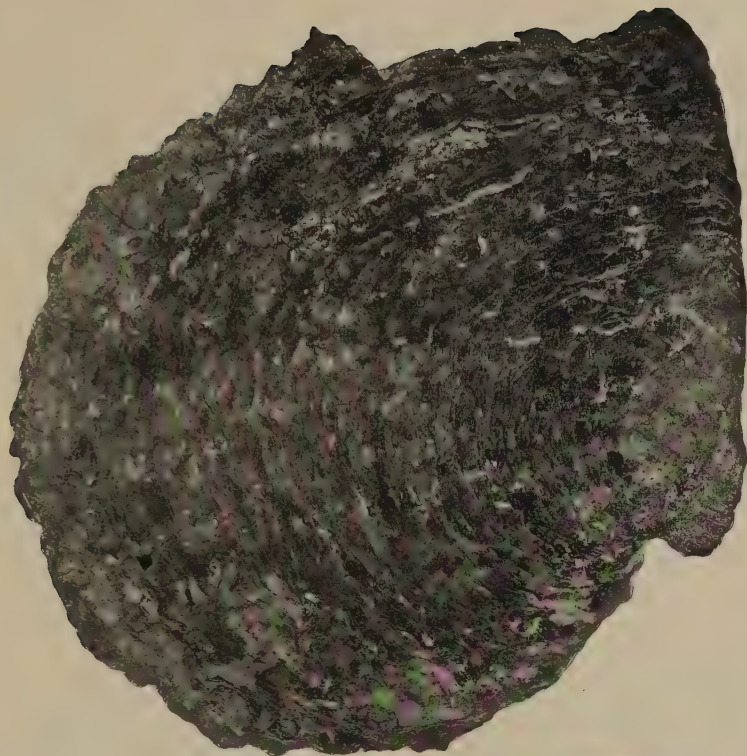
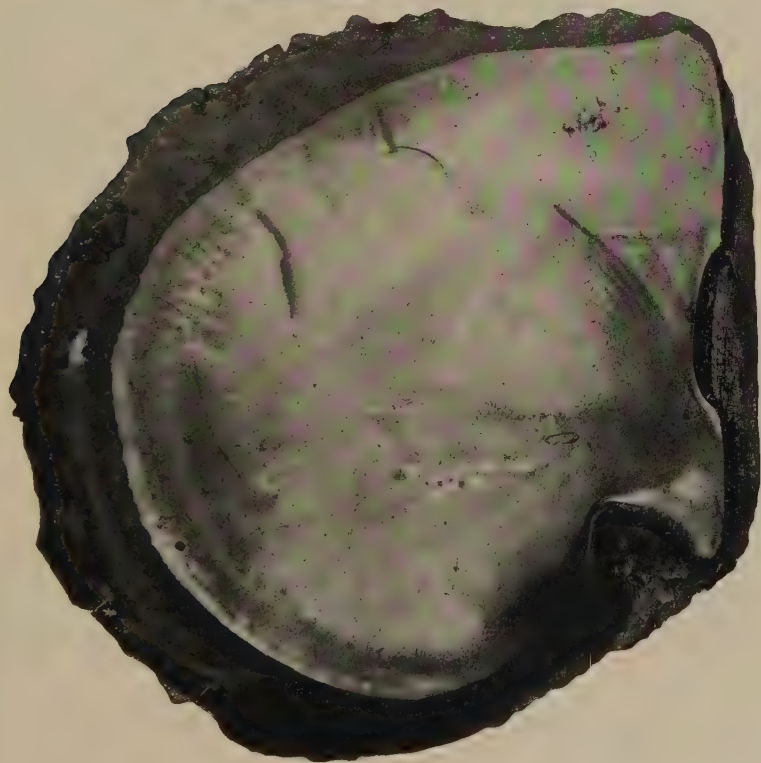
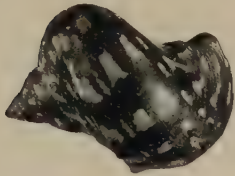
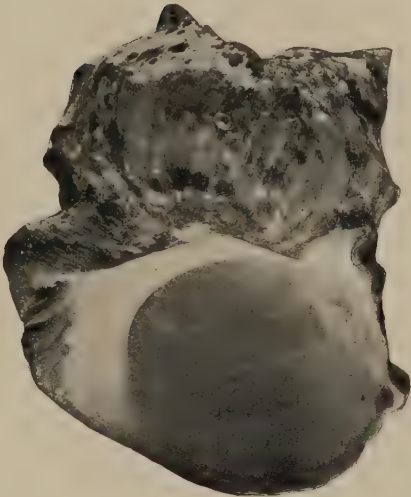


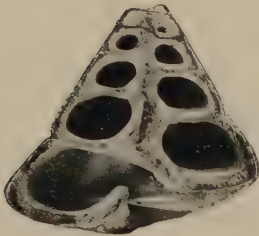
PLATE II. GOLD-LIP PEARL OYSTER, MARGARITIFERA MAXIMA JAMESON.



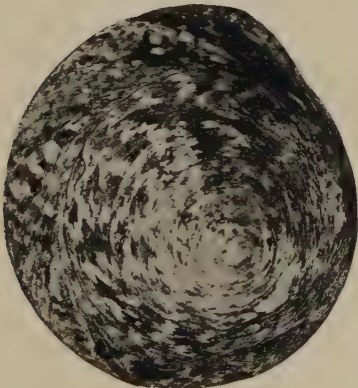
a



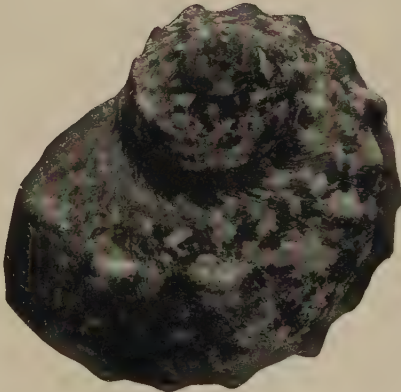
b



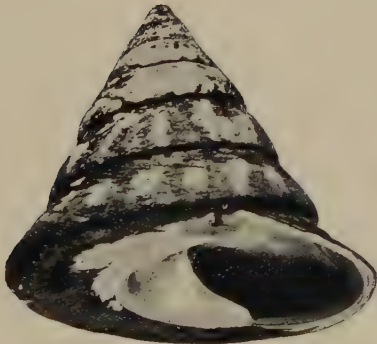
d



e



c



f



g

PLATE III. TOP SHELLS AND TURBAN SHELLS.

NESTING OF THE PHILIPPINE GLOSSY STARLING

By PAUL D. BUNKER¹

(Corregidor, P. I.)

April 23, 1916, while at Fort Wint, Subic Bay, Luzon, Philippine Islands, my attention was attracted by a large number of black birds that alighted repeatedly on some rotten piles sticking out of the water in front of the quarters. These wooden piles, the remains of a wharf which formerly existed here, extend about 1.2 meters above high water and are fairly rotten, especially the cores. The range of tide is about 1 meter.

One of these birds would alight on the top of a pile and chatter a second, whereupon its mate would pop up beside it, and after a short conversation the first bird would disappear into a hole in one of the piles and the second bird would fly away. There were from one to two hundred of the piles and almost every rotten one seemed to contain a nest.

The nests consisted of nothing more than the soft punk of rotten wood on which the eggs were laid. One nest contained three young, recently hatched. Another contained the two eggs which I took. They had evidently been incubated for a few days.

The birds appear to be of about the size of the American red-wing blackbird or a trifle smaller. Their totally black plumage has a beautiful iridescence, and their irides are flaming scarlet. They are doubtless *Lamprocorax panayensis* (Scopoli), the Philippine glossy starling.

The eggs measure 29 by 19 and 28 by 19 millimeters, respectively, and in color agree with the description given by Grant and Whitehead,² except that there are a few scattered markings along the sides of the eggs, beside those at the large end.

¹ Captain, Coast Artillery Corps, United States Army.

² See McGregor, *Manual of Philippine Birds*. Manila (1909), 716.

NEW OR NOTEWORTHY PHILIPPINE BIRDS, I

By RICHARD C. MCGREGOR

(From the Section of Ornithology and Taxidermy, Biological Laboratory,
Bureau of Science, Manila, P. I.)

TWO TEXT FIGURES

This paper consists of the description of a beautiful new species of wood pigeon and notes on six species of birds that are rare or not previously recorded from the Philippine Islands. I take pleasure in thanking Dr. C. W. Richmond, of the United States National Museum, for identifying some of the latter, and Mr. H. C. Oberholser, of the United States Department of Agriculture, for examining the specimens of *Pycnonotus*.

Leucotreron merrilli sp. nov. Fig. 1.

Leucotreron marchei MCGREGOR, Phil. Journ. Sci., Sec. D (1910), 5,
105 (Polillo); Man. Phil. Bds. (1909), 726.

Specific characters.—Forehead gray; above including wings mostly green; most nearly allied to *Leucotreron marchei* (Oustellet), as indicated by the peculiar red patch on the secondaries, but with no red on head and no red or orange on breast. The feathers of the breast are not decomposed as in *L. marchei*.

Type.—No. 7633, adult male in breeding plumage, Bureau of Science collection. Sarai barrio, Paete, Laguna Province, Luzon, P. I. Collected June 12, 1915, by R. C. McGregor and A. Celestino.

Description of type.—General color above, including wings, forest green, becoming more bluish or yellowish in different positions with regard to the light; chin white; forehead, crown, and sides of head and throat gull gray, strongly tinged with green on occiput, auriculars, and sides of neck, and gradually merging into the clear forest green of neck; lower throat and breast light neutral gray, lightly tinged with green and sharply cut off from the cream-buff of lower breast and abdomen by a narrow pectoral band of dark forest green, this band changing to myrtle green when held toward the light; lower breast and abdomen cream-buff; sides, flanks, and thighs green; under tail-coverts green, broadly edged and tipped with cream-buff; wings green like the back; primaries chætura black, narrowly edged with pale cream-buff; secondaries forest green, the four outermost edged with cream-buff near the tips, 4th to 9th with part of the web de-

composed and garnet brown, forming a conspicuous patch as in *Leucotreron marcheii*, but the patch smaller and its color darker than in the latter species; on each feather at the base of the decomposed area a narrow blue streak, about Roslyn blue; feathers of alula chætura black, edged with green; wing-lining, axillars, and greater part of inner webs of primaries and secondaries pecan brown; rectrices above forest green, shafts black, below deep gull gray, the tips paler, shafts white. Iris dark carmine; bill ox-blood red, tip dirty deep chrome; legs, feet, and bare skin around eye ox-blood red; nails buffy brown, tips black. Length, about 340 millimeters; wing, 165; tail, 125; culmen, 15; tarsus 28; middle toe with claw, 39.



FIG. 1. *Leucotreron merrilli* McGregor, sp. nov., generic details. One-half natural size.

Distribution.—Polillo Island and Laguna and Albay Provinces, Luzon.

Remarks.—This very conspicuous species was discovered in Polillo Island in October, 1909, but the single specimen obtained at that time was recorded as *Leucotreron marcheii*, as I suspected that it might be an immature bird. However, six specimens collected near Paete, Laguna Province, Luzon, are adult breeding birds and there can be no doubt that they represent a perfectly distinct species. I have recently examined a living bird of this species which was captured in Albay Province, Luzon. The sexes are alike in plumage.

Specimens of *Leucotreron merrilli* collected in June were feeding on the fruits of *Symplocos ahernii* Brand, a small timber tree of minor importance. It is probable that this species and the other forest-inhabiting pigeons are important agents in the distribution of the seeds of trees.

The species is named for Elmer Drew Merrill, botanist, Bureau of Science, in recognition of his work on the phytogeography of the Philippine Islands.

Platalea minor Temminck and Schlegel. Fig. 2.

Platalea minor TEMMINCK and SCHLEGEL, Fauna Japonica, Aves (1850), 120, Pl. 76; STEJNEGER, Proc. U. S. Nat. Mus. (1887), 10, 4 and 281; O. GRANT, Ibis (1889), 54, Pl. 1, figs. 3, 3a, and 6; SHARPE, Cat. Bds. Brit. Mus. (1898), 26, 50 and note on p. 49; Hand-list Bds. (1899), 1, 188; MCGREGOR, Phil. Journ. Sci. (1906), 1, 766; Man. Phil. Bds. (1909), 159.

I have recorded the taking of two specimens of the lesser

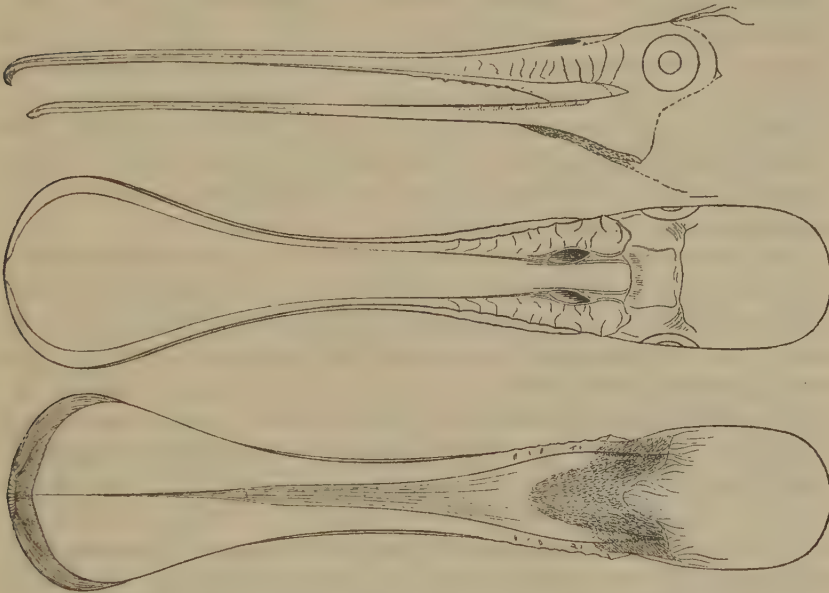


FIG. 2. *Platalea minor* Temminck and Schlegel, three views of the bill, from a specimen collected by Charles S. Banks, at Dagupan, Luzon, P. I. One-half natural size.

spoonbill in Luzon, and in November, 1910, I had the pleasure of seeing living birds of this species near Obando, Bulacan Province, Luzon. I now have additional information regarding this species.

Northwest of Manila the land is low and flat and is traversed by numerous streams that form the delta of the Pampanga and other smaller rivers. A part of this low land has been converted into ponds for the culture of bañgos, *Chanos chanos* Forskål, while an immense area is devoted to the nipa palm, *Nipa fruticans* Wurmb, the source of nipa alcohol. Oysters are cultivated in the larger streams. At low tide wide mud flats are exposed along the shore, and during migrations these

are the feeding grounds of thousands of plovers, sandpipers, and similar shore birds. In November, 1910, headquarters were established at Obando, Bulacan Province, from where it was possible to inspect a large area by means of a banca.

On November 13 a flock of about one hundred common herons, *Ardea cinerea* Linnæus, was seen on the low land near Baluarte barrio. This was an event of importance, for this large heron has seldom been seen in the Islands and there is no definite record of its occurrence in Luzon.¹ With the herons were two white birds, which were easily recognized as spoonbills. The spatulate bill was distinctly seen. Both herons and spoonbills maintained a safe distance between themselves and our guns.

Two days later one spoonbill was observed with the flock of herons. These birds were very shy, and several attempts to stalk the spoonbills were fruitless. During flight this bird appeared to be of about the same size as *Egretta garzetta*, and the bill was very conspicuous because of its size and shape. The spoonbill sailed much more than the herons and seemed to be stronger and steadier in flight.

The spoonbill was well known to my boatmen and others, who stated that it was not common, but was sometimes seen in small flocks. They said that in feeding a distinct clicking sound was produced by the opening and closing of the bill. The local name for this species is *sudsud*. In November, 1912, Celestino was sent to Obando, but failed to see a specimen of the spoonbill. In 1914 the same collector was sent to Dagupan, Pangasinan Province, where he secured a slightly immature female spoonbill on October 26 (Bureau of Science collection, No. 13274). This was the only individual seen. The length of this specimen, taken in the flesh, was 750 millimeters. Measurements taken from the skin are: Wing, 360 millimeters; tail (imperfect), 100; culmen from feathers, 178; occipital crest, 30; bill from nostril, 153; greatest width of bill, 48; least width of bill, 17; tarsus, 123; middle toe with claw, 90; hind toe with claw, 42.

The color notes taken by the collector are:

Ojos pardo, pies y uñas negro, pico pardo blanquizco, el borde de los ojos negro hasta la garganta.

There is a full, broad occipital crest, which is 30 millimeters long. The plumage is entirely white except parts of some of the wing feathers. The shafts of the remiges and of the feathers

¹ Man. Phil. Birds (1909), 164.

of the alula, of the under coverts, and of the larger upper coverts are largely or entirely fuscous-black. Distally the webs of the four outermost primaries are fuscous for a short distance. The webs of the inner primaries and outer secondaries distally are narrowly fuscous next to the shaft.

At the base of the first primary is a small, primarylike feather—entirely fuscous. It measures 48 millimeters, taking its base as being opposite the small, sharp spur on the edge of the wing. Being in doubt as to this feather, I requested Dr. C. W. Richmond to examine the wing of a spoonbill, and under date of November 16, 1915, he replied:

I have submitted the question of the small primary-like feather on the wing of the *Platalea* to several of our experts here, and they all agree that it is not a primary; and I had already made this decision myself. I do not know just what the mission of the feather is, but it has been noticed before, first, I think, by Baird, who wrote as follows about it in his Review of American Birds, page 325 (note): "In *V [ireo] flavifrons*, in which this outer primary is supposed to be wanting, its presence may easily be appreciated. One of the peculiar characters of this species consists in a narrow edging of white to all the primary quills, while the primary coverts (the small feathers covering their bases, as distinguished from what are usually termed the wing coverts, which more properly belong to the forearm or secondaries) are without them. If these coverts are carefully pushed aside, two small feathers, considerably shorter than the others will be disclosed, one overlying the other, which (the subjacent one) springs from the base of the exposed portion of the long outermost primary, and lies immediately against the outer edge. This small subjacent feather is stiff, falcate, and edged with white like the other quills, and can be brought partly round on the inner edge of the large primary, when it will look like any spurious quill. The overlying feather is soft, and without light edge.

"In the other *Vireos* with appreciable spurious or short outer primary, a similar examination will reveal only one small feather at the outer side of the base of the exterior large primary. In all the families of Passeres where the existence of nine primaries is supposed to be characteristic, I have invariably found, as far as my examinations have extended, that there were two of the small feathers referred to, while in those of ten primaries but one could be detected." Baird's discovery does not seem to have received the attention it probably deserves.

Ardea cinerea Linnæus.

Ardea cinerea LINNÆUS, Syst. Nat., ed. 10 (1758), 1, 143; STEERE, Bds. and Mams. Steere Exp. (1890), 26; MCGREGOR, Man. Phil. Bds. (1909), 163.

Steere records the common heron from Guimaras Island. The only other Philippine record for the species was based on a damaged skin of unknown origin. I am now able to record two specimens of this species from Luzon. On November 13, 1910,

a flock of at least one hundred common herons was seen near Obando, Bulacan Province, Luzon, and an immature female (Bureau of Science collection, No. 7370) was killed on the 15th. An adult male (No. 13273) was collected by Celestino near Lal-lo, Cagayan Province, December 19, 1913.

Totanus stagnatilis Bechstein.

Totanus stagnatilis BECHSTEIN, Orn. Taschenb. (1803), 11, 293; SHARPE, Cat. Bds. Brit. Mus. (1896), 24, 422; Hand-list Bds. (1899), 1, 160.

Iliornis stagnatilis KAUP, Natürl. Syst. (1829), 156.

Limosa horsfieldii SYKES, Proc. Zool. Soc. London (1832), 163.

Iliornis horsfieldi MATHEWS, Bds. Australia (1913), 3, 200.

Two Philippine bird skins in the Bureau of Science collection have been identified by Dr. C. W. Richmond as *Totanus stagnatilis* Bechstein, a species not recorded from the Philippine Islands. I have before me three other specimens of the same species. All of these were collected in Luzon, as follows:

Measurements of Totanus stagnatilis.

No.	Sex.	Locality.	Date.	Wing.	Tail.	Culmen.	Tarsus.	Middle toe with claw.
				mm.	mm.	mm.	mm.	mm.
13276	♀	Obando, Bulacan	Nov. 20, 1912	132	61	39	52	31
13277	♂	do	do	131	58	42	53	31.5
13275	♂	Dagupan, Pangasinan	Oct. 23, 1914	135	60	38	49.5	30.5
13196	♂	Obando, Bulacan	Oct. 12, 1915	143	61	42	54	33
13197	♀	do	do	138	56	41	53	30

It is probable that the Philippine specimens belong to the species *Iliornis horsfieldi* of Mathews, but as I have not the necessary literature and specimens, I shall leave that question to others, contenting myself with recording the species as a migratory visitor to the Philippine Islands.

Pycnonotus plumosus Blyth.

Pycnonotus plumosus BLYTH, Journ. As. Soc. Beng. (1845), 14, 567; SHARPE, Cat. Bds. Brit. Mus. (1881), 6, 152; Hand-list Bds. (1901), 3, 332;² OATES, Fauna Brit. India, Bds. (1889), 1, 292.

Laedorusa plumosa BÜTTIKOFER, Notes Leyden Mus. (1896), 17, 240.

² The footnote on page 329 of the Hand-list evidently has nothing to do with the genus *Pycnonotus*, but probably was intended to appear on page 315 as a note to the name *Micropus*. See also *Penthornis luzoniensis* (Gm.) Sharpe, Hand-list (1903), 4, 333.

Two specimens of *Pycnonotus* (No. 13206 and 13207), collected on Cagayan Sulu Island, July 1, 1911, are so much darker than the species indigenous to Palawan that I was led to compare them with the scanty exotic material of this genus at hand, and found that they resemble a male of *Pycnonotus plumosus* from Trong, Lower Siam—an Abbott specimen which had been received in exchange from the United States National Museum. In order to avoid any error, the three specimens were sent to Washington. They have been returned with the identification confirmed by Dr. C. W. Richmond and Mr. H. C. Oberholser. This is the first record of *Pycnonotus plumosus* from the Philippine Islands.

Several of the species known from Cagayan Sulu indicate that its fauna is more strongly Bornean than Philippine. These species are:

<i>Eudynamys honorata</i> (Linnæus).	<i>Mixornis cagayanensis</i> Guillemard.
<i>Chibia borneensis</i> Sharpe.	<i>Uroloncha fuscans</i> (Cassin).
<i>Orthotomus cineraceus</i> Blyth.	<i>Pycnonotus plumosus</i> Blyth.

***Sporæginthus amandava* (Linnæus).**

- Fringilla amandava* LINNÆUS, Syst. Nat., ed. 10 (1766), 1, 319.
Sporæginthus amandava SHARPE, Cat. Bds. Brit. Mus (1890), 13, 320;
 Hand-list Bds. (1909), 5, 439.

December 6, 1910, Dr. H. C. Curl collected in Pampanga Province, Luzon, a small ploceid which is very distinct from any of the native species. This is doubtless *Sporæginthus amandava*. Shortly after this I found a dead specimen in Manila. In October, 1914, when returning from Dagupan, Celestino noted live birds of this species being offered for sale at Bambang.

I have been told that a shipment of these birds was brought to Manila and that the Collector of Customs refused to let the birds be landed. If this is true, it seems probable that they were permitted to escape and that some reached shore and established themselves.

As members of the Plociidæ are believed to be of considerable economic importance, it is desirable that the supposed approximate date of the introduction of the above species be placed on record.

ILLUSTRATIONS

[Drawings by T. Espinosa.]

TEXT FIGURES

- FIG. 1. *Leucotreron merrilli* McGregor, sp. nov., generic details. One-half natural size.
2. *Platalea minor* Temminck and Schlegel, three views of the bill, from a specimen collected by Charles S. Banks at Dagupan, Luzon, P. I. One-half natural size.

NEUER BEITRAG ZUR KENNTNIS DER PHILIPPINISCHEN
CYNIPIDEN

Von. J. J. KIEFFER
(*Bitsch, Germany*)

Genus **EUCOILA** Westwood

- a*¹. Antenne 14 gliedrig..... **E. (Episoda) luzonica.**
*a*². Antenne 13 oder 15 gliedrig.
*b*¹. Körper rotbraun, Kopf schwarz; Napf klein, fast um seine ganze
Breite von den Seitenrändern des Scutellum entfernt.... **E. pulchra.**
*b*². Körper grösstenteils schwarz; Napf gross, fast die Seitenränder des
Scutellum erreichend.
*c*¹. Prothorax und Scutellum rotbraun; Abdomen vorn mit einem
Haarring **E. manillensis.**
*c*². Thorax einfarbig schwarz; Abdomen vorn ohne Haarring, aber mit
je einem Haarfleck..... **E. philippinarum.**

***Eucoila pulchra* sp. nov.**

Rotbraun, glatt und stark glänzend. Kopf schwarz, stark quer, von der Seite gesehen doppelt so hoch wie lang, von vorn gesehen höher als breit. Stirn gewölbt. Wange halb so lang wie das kahle Auge. Antenne etwas länger als der Körper, 13 gliedrig, 1. und 2. Glied gelb, 3. und 4. schwach gebräunt, die folgenden schwarzbraun, 2. fast kugelig, 3. doppelt so lang wie dick, kaum kürzer als das 4., 5. so lang wie das 4. und dicker, die folgenden deutlich aber wenig dicker, walzenrund, wenigstens doppelt so lang wie dick, feinhaarig. Thorax kaum länger als hoch, stark gewölbt. Grübchen des Scutellum klein, Napf elliptisch, klein, wenig breiter als sein Abstand vom Seitenrande des Scutellum, sehr seicht eingedrückt, hinten mit einem kreisförmigen Grübchen. Flügel ziemlich glashell, lang bewimpert, Radialzelle geschlossen, drei mal so lang wie breit, 3. Abschnitt der Subcostalis fast punktförmig, Stigmalis (1. Abschnitt der Radialis) so lang wie die Radialis (2. Abschnitt der Radialis) und etwas bogig gekrümmt, Cubitalis durchlaufend. Abdomen vorn mit einer fast kahlen, sehr spärlich fein haarigen Querwulst.

Länge, 1.8 Millimeter.

LUZON, Laguna, Berg Maquiling (*Baker*).

Eucoila manilensis sp. nov.

♂ : Schwarz, glatt und glänzend. Antenne braunschwarz, 15 gliedrig, 1. und 2. Glied schwarz, 3. und 4. rotbraun, 2. kugelig, 3. das längste, drei mal so lang wie dick, kaum bogig gekrümmt, die folgenden ziemlich walzenrund und fast zwei mal so lang wie dick. Thorax kaum länger als hoch, stark gewölbt. Grübchen des Scutellum klein, Napf gross, elliptisch, fast die Seitenränder des Scutellum erreichend, ausgehöhlt. Metapleure mit grauem Haarfilz. Prothorax und Scutellum rotbraun. Flügel glashell, bewimpert, Radialzelle geschlossen und von der Costalis etwas überragt, wenig mehr als zwei mal so lang wie breit, Stigmatis mehr als drei mal so lang wie der 3. Abschnitt der Subcostalis, gerade, kaum kürzer als die Radialis, Cubitalis blass. Beine gelb. Haarring des Abdomen grau und schmal.

Länge, 1.5 Millimeter.

LUZON, Laguna, Los Baños (*Baker*).

Eucoila philippinarum sp. nov.

♂ : Schwarz, glatt und glänzend. Antenne 15 gliedrig, die 5 proximalen Glieder gelb, die folgenden allmählich gebräunt, 2. Glied kugelig, 3. viel dünner als die folgenden, wenig mehr als doppelt so lang wie dick, 4. deutlich länger als das 3., nicht deutlich bogig, die folgenden so lang wie das 4., nur die letzten dünner und kürzer. Grübchen des Scutellum klein, Napf gross, elliptisch, die Seitenränder fast berührend, ausgehöhlt. Flügel glashell, bewimpert, Radialzelle geschlossen, zwei und ein halb bis drei mal so lang wie breit, Radialis um die Hälfte länger als die Stigmatis, diese bogig und drei mal so lang wie der 3. Abschnitt der Subcostalis, Cubitalis nur spurenweise angedeutet. Beine gelb. Vorderende des Abdomen rotbraun, mit grauen feinen Haaren an den Seiten.

Länge, 1.5 Millimeter.

LUZON, Laguna, Los Baños (*Baker*).

Eucoila (Episoda) luzonica sp. nov.

♂ : Schwarz, glatt und glänzend. Kopf vorn höher als breit. Antenne 14 gliedrig, kaum länger als der Körper, fahlgelb, 3. bis 5. Glied allmählich länger werdend, das 3. gut doppelt so lang wie dick, 6. so lang wie das 5., 6. bis 14. etwas dicker, fast walzenrund, allmählich verkürzt, das 14. jedoch eirund. Thorax deutlich länger als hoch. Grübchen des Scutellum klein, Napf elliptisch, matt, runzlig, die Seitenränder erreichend, hinten hell gerandet und mit einem kleinen kreisrunden Eindruck, Flügel glashell, bewimpert, Radialzelle gross, geschlossen, von

der Costalis sehr wenig überragt, Stigmalis drei mal so lang wie der 3. Abschnitt der Subcostalis, deutlich kürzer als die Radialis, schwach bogig, Cubitalis durchlaufend. Abdomen vorn mit einem wenig breiten rötlichen Haarring.

Länge, 2 Millimeter.

LUZON, Laguna, Berg Maquiling (*Baker*).

Genus COTHONASPIS Hartig

a^1 . 15. Glied der Antenne allmählich länger werdend, 4. verdickt.

C. lagunensis.

a^2 . 15. Glied der Antenne gleich lang, 4. nicht verdickt..... *C. rufata.*

Cothonaspis lagunensis sp. nov.

♂ ♀ : Rotbraun, glatt und glänzend. Kopf schwarz. Antenne des ♂ 15. gliedrig, viel länger als der Körper, rotbraun, 1. und 2. Glied schwarz, das 2. fast kugelig, 3. so dick wie das 2., walzenrund, um die Hälfte länger als dick, 4. nicht bogig aber in der Mitte verdickt, am Grunde ausgeschnitten, länger als das 3., etwas kürzer als das 5., 4. bis 15. allmählich länger und dünner werdend, die letzten mehr als drei mal so lang wie dick. Antenne des ♀ 13 gliedrig, dunkel rotbraun, 2. Glied länger als dick, 3. und 4. gleich, dünner als das 2., um die Hälfte länger als dick, 5. bis 13. etwas dicker, deutlich länger als das 4., die Antenne wenig länger als der Körper. Grübchen des Scutellum klein, das heisst, nicht so lang wie das übrige Scutellum, Napf klein, kurz elliptisch, um mehr als seine Breite von den Seitenrändern getrennt, ausgehöhlt. Mediansegment mit 2 parallelen Längsleisten. Flügel schwach getrübt, bewimpert, Adern blass, Radialzelle am ganzen Vorderrande offen, doppelt so lang wie breit, Stigmalis schwach bogig, deutlich kürzer als die schwächer gekrümmte Radialis, 3. Abschnitt der Subcostalis wenigstens halb so lang wie die Stigmalis, Cubitalis sehr blass. Beine gelbrot. Abdomen vorn mit einem sehr schmalen, grauen Haarring.

Länge, 1.8 Millimeter.

LUZON, Laguna, Los Baños und Berg Maquiling (*Baker*).

Cothonaspis rufata sp. nov.

♂ : Rotbraun, glatt und glänzend. Kopf schwarz, vorn höher als breit. Antenne 15 gliedrig, dunkel rotbraun, 3. bis 15. Glied gleichlang, etwas länger als dick, so dick wie das 2. Glied. Thorax wenig länger als hoch, stark gewölbt. Grübchen des Scutellum klein; Napf klein, elliptisch, so breit wie sein Abstand von den Seitenrändern, ausgehöhlt. Flügel glashell, bewimpert,

Radialzelle am ganzen Vorderrande und ein wenig am Distalende offen, zwei und ein halb mal so lang wie breit, Stigmalis schwach bogig, halb so lang wie die Radialis, doppelt so lang wie der 3. Abschnitt der Subcostalis, Cubitalis wenig deutlich. Beine rot. Haarring des Abdomen grau und schmal.

Länge, 1.8 Millimeter.

LUZON, Laguna, Berg Maquiling (*Baker*).

Genus ERISPHAGIA A. Förster

α^1 . Napf des Scutellum klein, um seine ganze Breite von den Seitenrändern des Scutellum entfernt..... *E. cupulifera*.

α^2 . Napf des Scutellum gross, um seine halbe Breite von den Seitenrändern entfernt *E. philippinensis*

Erisphagia cupulifera sp. nov.

δ : Schwarz, glatt und glänzend. Antenne länger als der Körper, 15 gliedrig, 1. und 2. Glied gelb, das 3. kürzer als das 4., doppelt so lang wie dick, die folgenden allmählich etwas länger, walzenrund. Grübchen des Scutellum sehr klein; Napf klein, kurz elliptisch, fast kreisrund, um seine ganze Breite von den Seitenrändern entfernt, hintere Hälfte mit kreisrundem Eindruck. Flügel glashell, Radialzelle geschlossen, zwei und ein halb mal so lang wie breit, Stigmalis deutlich kürzer als die Radialis, 3. Abschnitt der Subcostalis nicht halb so lang wie die Stigmalis, Cubitalis durchlaufend. Abdomen ohne Haarring.

Länge, 1.3 Millimeter.

LUZON, Laguna, Berg Maquiling (*Baker*).

Erisphagia philippinensis sp. nov.

φ : Schwarz, glatt und glänzend. Antenne 13 gliedrig, 3. bis 7. Glied gelb, 8. bis 13. dunkelbraun, das 2. kugelig, 3. dem 4. gleich, dünner als das 2., 3 bis 4 mal so lang wie dick, am Distalende etwas verdickt, 5. und 6. so dünn wie das 4., aber allmählich kürzer, das 6. noch mehr als zwei mal so lang wie dick, die 7 Endglieder verdickt, eine Keule bildend, fast doppelt so lang wie dick, ziemlich walzenrund. Grübchen des Scutellum klein; Napf ziemlich gross, elliptisch, um seine halbe Breite von den Seitenrändern getrennt, ausgehöhlt, fein punktiert. Flügel glashell, bewimpert, Radialzelle geschlossen, zwei und ein halb mal so lang wie breit, Radialis bogig, um die Hälfte länger als die Stigmalis, diese fast drei mal so lang wie der 3. Abschnitt der Subcostalis, Cubitalis blass, nicht durchlaufend. Abdomen vorn ohne Haarring und ohne Wulst.

Länge, 1.5 Millimeter.

LUZON, Laguna, Los Baños.

Genus **GANASPIS** A. Förster

- a*¹. Radialzelle am Vorderrande offen..... *G. aperta*.
*a*². Radialzelle ringsum geschlossen.
*b*¹. Napf des Scutellum klein, nicht breiter als sein Abstand von den
 Seitenrändern, Grübchen länger als das übrige Scutellum, 3. Antennenglied stark bogig..... *G. validicornis*
*b*². Napf des Scutellum gross, fast die Seitenränder erreichend, Grübchen
 viel kürzer als das übrige Scutellum, 3. Antennenglied kaum bogig
 beim ♂.
*c*¹. Abdomen vorn mit Haarring, Stigmatis etwas kürzer als die
 Radialis *G. hexatoma*.
*c*². Abdomen vorn ohne Haarring, Stigmatis nicht kürzer als die
 Radialis *G. minima*.

Ganaspis aperta sp. nov.

♂ : Schwarz, glatt und glänzend. Antenne rotbraun, 1. und 2. Glied schwarz, das 2. kuglig, das 3. das längste, kaum bogig, drei mal so lang wie dick, 4. bis 15. gut anderthalb mal so lang wie dick. Grübchen des Scutellum sehr klein, nicht halb so lang wie der Napf, dieser gross, gewölbt, ohne Rand, hinten mit einem kleinen, kreisförmigen Eindruck, die Seitenränder des Scutellum erreichend. Mediansegment mit 2 parallelen Längsleisten. Metapleure grauflzig behaart. Flügel glashell, bewimpert, Radialzelle am ganzen Vorderrande offen, zwei und ein halb mal so lang wie breit, Radialis schwach bogig gekrümmt, fast doppelt so lang wie die Stigmatis, diese doppelt so lang wie der 3. Abschnitt der Subcostalis. Beine gelbrot, Coxæ schwarz. Haarring des Abdomen grau und sehr schmal.

Länge, 1.5 Millimeter.

LUZON, Laguna, Los Baños; Tayabas, Berg Banahao (*Baker*).

Ganaspis validicornis sp. nov.

♂ : Schwarz, glatt und glänzend. Wange mit einer Furche. Antenne rotbraun, länger als der Körper, 15 gliedrig, 2. Glied kugelig, 3. stark bogig gekrümmt, distal verdickt, das längste von allen, 4. fast drei mal so lang wie dick, die nächst folgenden dem 4. gleich, die 6 oder 7 letzten allmählich dünner und kürzer. Thorax etwas länger als hoch, stark gewölbt. Grübchen des Scutellum gross, länger als ihr Abstand vom Hinterende des Scutellum; Napf klein, elliptisch, um seine Breite von den Seitenrändern entfernt, stark gewölbt und ohne Rand. Flügel glashell, bewimpert, Radialzelle geschlossen, von der Costalis kaum überragt, zwei und ein halb mal so lang wie breit, Radialis schwach bogig, um die Hälfte länger als die Stigmatis, diese gerade, fast

doppelt so lang wie der 3. Abschnitt der Subcostalis, 2. Abschnitt der Cubitalis am Grunde bogig, durchlaufend, blass. Haarring des Abdomen fahlgelb, wenig dicht, sehr schmal.

Länge, 1.8 Millimeter.

LUZON, Tayabas, Malinao (*Baker*).

Ganaspis hexatoma sp. nov.

♀ : Schwarz, glatt und glänzend. Antenne 13 gliedrig, dunkel rotbraun, 3. Glied doppelt so lang wie dick, 4. bis 7. gleich dünn, nicht länger als dick, Keule abgesetzt, 6 gliedrig, ihre Glieder fast kuglig, das Endglied eirund. Grübchen des Scutellum klein, Napf gewölbt, elliptisch, nicht gerandet, mässig gross. Flügel glashell, Radialzelle geschlossen, zwei mal so lang wie breit, Stigmalis etwas kürzer als die Radialis, beide schwach bogig, 3. Abschnitt der Subcostalis nicht halb so lang wie die Stigmalis, Cubitalis blass, durchlaufend. Beine lehmgelb. Haarring des Abdomen fahlgelb.

Länge, 1 Millimeter.

LUZON, Laguna, Berg Maquiling (*Baker*).

Ganaspis minima sp. nov.

♂ : Schwarz, glatt und glänzend. Antenne 15 gliedrig, die 3 proximalen Glieder hellgelb, 4. bräunlich, 2. Glied fast kugelig, 3. walzenrund, fast drei mal so lang wie dick, 4. etwas länger als das 3., kaum bogig, die folgenden so lang wie das 4. Grübchen des Scutellum klein; Napf gross, fast die Seitenränder erreichend, stark gewölbt, hinten mit einem kreisrunden Eindruck, nicht gerundet. Flügel glashell, bewimpert, Radialzelle geschlossen, zwei und ein halb mal so lang wie breit, Stigmalis und Radialis gleichlang, 3. Abschnitt der Subcostalis nicht ein Drittel so lang wie die Stigmalis. Beine hellgelb. Abdomen vorn rot und verengt, ohne Haarring.

Länge, 0.8 Millimeter.

LUZON, Laguna, Los Baños (*Baker*).

ASPICERINÆ

Genus *Holocynips* novum

Auge gross und kahl. Antenne des ♂ 14 gliedrig. Parapsidenfurchen fehlend. Scutellum stumpf kugelig und stark gewölbt. Radialzelle geschlossen, 1. Cubitalzelle fast am ganzen Hinterrande offen, 2. Cubitalzelle fehlt. Krallen einfach. Ab-

domen seitlich zusammengedrückt, an einem ringförmigen Fortsatz des Metathorax, etwas über den hinteren Coxae entspringend, Petiolus ringförmig, 2. und 3. Tergit gleich lang, fast zungenförmig, 4. seitlich länger als die folgenden zusammen, dorsal kürzer als diese, das längste von allen, die 3 oder 4 folgenden kurz, Hinterende des Abdomen allmählich abgerundet. Type, *Holocynips nigra* sp. nov.

Holocynips nigra sp. nov.

♂: Schwarz, matt. Kopf stark quer und grob runzlig, von vorn gesehen kaum höher als breit; Stirn lederartig, mit einigen zerstreuten groben Punkten und je einem Längskiel von der hinteren Ocelle bis zur Mandibel. Wange lederartig, gut halb so lang wie das Auge. Schläfe grob gerunzelt, längs des zugeschärften Randes tief eingedrückt. Ocellen auf einer Erhöhung des Scheitels liegend, ein Dreieck bildend, zwischen der hinteren und dem Auge ist der Scheitel tief eingedrückt; hinter jedem Scapus befindet sich eine tiefe, glatte und glänzende Längsgrube. Mandibel braun. Antenne 14 gliedrig, weit nach hinten, nämlich hinter der Mitte der Augen, entspringend, der vorderen Ocelle viel näher als dem Munde, Scapus schwarzbraun, 2. Glied fast kugelig, 3. kaum länger als des Scapus, fast doppelt so lang wie dick, walzenrund, die folgenden dem 3. gleich, 14. länger, gut 2 mal so lang wie dick. Thorax wenig länger als hoch, stark gewölbt, dorsal grob fingerhutartig punktiert, die Punkte fast napfförmig und benabelt. Prothorax vorn senkrecht abgestutzt. Pronotum in der Mitte sehr schmal. Scutellum vorn mit 2 tiefen, glatten, glänzenden und nur durch eine Leiste voneinander getrennten Gruben. Mesopleure unten mit einer tiefen, gekerbten Längsrinne. Vorderflügel fast glas hell, Radialzelle und ihre Umgebung dunkelbraun, Radialzelle geschlossen, dreieckig, in dem die Stigmalis und der 3. Abschnitt der Subcostalis dieselbe fast senkrechte Richtung haben, letzterer gut halb so lang wie erstere, Radialis gerade, wenigstens doppelt so lang wie die Stigmalis, 1. Abschnitt der Cubitalis sehr kurz, seine Fortsetzung würde den Grund der Basalis erreichen, 2. Abschnitt blass, durchlaufend. Vordere Tibia und alle Tarsen lehm gelb, hintere Coxa sehr lang und dick, Hinterbein verdickt. Abdomen glatt und glänzend, Petiolus quer, grob längsgerieft.

Länge, 3.5 Millimeter.

PALAWAN, Puerto Princesa (*Baker*).

LIOPTERONINÆ

Genus **ALLOCYNIPS** Kieffer**Allocynips flaviceps** sp. nov.

♀ : Schwarz. Kopf fast drei mal so breit wie lang, ziemlich matt. Scheitel eingedrückt, die Stelle der Ocellen erhaben. Stirn mit je einem Längskiel zwischen Scapus und Auge bis zum Scheitel; ferner geht von jeder Ocelle ein Kiel nach vorn aus, diese 3 Kiele vereinigen sich zu einem Einzigem zwischen den Antennen; der Raum zwischen dem Randkiel und den 3 medialen Kielen ist tief rinnenartig eingedrückt. Gesicht gewölbt, mit Spuren einer netzartigen Runzelung, vorn mit je einer matten, kreisrunden Grube. Wange ohne Furche, gut halb so lang wie das Auge. Schläfe glatt. Antenne vor der Mitte der Augen entspringend, 13 gliedrig, Scapus schwarzbraun, kaum länger als das 3. Glied, 2. Glied fast so dick wie lang, 3. walzenrund wie die folgenden, gut zwei und ein halb mal so lang wie dick, 4. deutlich länger als das 3., die folgenden allmählich verkürzt, 12. noch gut anderthalb mal so lang wie dick, 13. mehr als doppelt so lang wie dick. Thorax fast doppelt so lang wie hoch, ziemlich gewölbt, glänzend. Prothorax und Mesonotum lehmgelb. Pronotum vorn senkrecht abgestutzt, hinten schmal bogig ausgeschnitten, seitlich grob und ziemlich dicht punktiert. Mesonotum wenigstens so lang wie breit, mit groben, queren Kielen. Parapsidenfurchen durchlaufend, nach hinten konvergierend. Scutellum anderthalb mal so lang wie breit, grob netzartig gerunzelt, hinten abgerundet, vorn mit 2 grossen, etwas queren Gruben, die nur durch eine Leiste voneinander getrennt sind. Pleuren fein weiss behaart, besonders die Metapleure; Mesopleure in der Mitte kahl, glatt, glänzend, mit einer durchlaufenden Längsrinne. Flügel bräunlich, am Vorderflügel sind die 1. Cubitalzelle, die Radialzelle und das proximale ein Drittel der offenen 2. Radialzelle dunkelbraun, 1. Cubitalzelle geschlossen, die Cubitalis entspringend vor (oberhalb) der Mitte der Basalis, 2. Abschnitt der Cubitalis fast durchlaufend, Radialzelle geschlossen, länger als die Cubitalzelle, Radialis gerade, zwei und ein halb mal so lang wie die Stigmalis, diese doppelt so lang wie der 3. Abschnitt der Subcostalis; Areola fehlend. Beine lehmgelb, Coxa und Trochanter der 4 hinteren Beine, sowie hinterer Tarsus schwarz, mittlerer Tarsus braun, Hinterbein dicker als die übrigen, ihre Coxa doppelt so lang wie die mittlere. Abdomen seitlich zusammengedrückt, etwas höher als die hintere Coxa entspringend, so lang wie der übrige Körper,

Petiolus quer, grob gerieft, 2., 3., und 4. Tergit stark quer, seitlich schräg bis zum Petiolus reichend, jedoch nicht zungenförmig, 5. das längste, in der hinteren Hälfte seitlich mässig grob punktiert und mit dichten rostroten Haaren, 6. kurz, seitlich mitten grob punktiert und rostrot dicht behaart, 7. wie das 6., aber die Punkte noch dichter und, wie die Haare, am Hinterende vorhanden; seitlich ist das Abdomen vom 5. und 6. Tergit gedeckt, ventral erscheint nur 1 langes Sternit, das stark kielförmig vorstehend, vom Grunde ausgeht und hinten in einen länglichen Bauchdorn ausläuft, dieser zwei bis drei mal so lang wie breit.

Länge, 8 Millimeter.

MINDANAO, Butuan (*Baker*).

BESCHREIBUNG EINER NEUEN MYMARIDE AUS DEN PHILIPPINEN

Von J. J. KIEFFER
(Bitsch, Germany)

Polynema loriger sp. nov.

♂ : Lehmgelb; Dorsalseite des Thorax und Hinterende des Abdomen gebräunt; die 4 vorderen Beine blassgelb, Hinterbein schwarz, Coxa und Trochanter blassgelb, 2. und 3. Glied des Hintertarsus sowie Distalende des 1. weiss. Kopf von oben gesehen fast quadratisch, etwas breiter als der Thorax, glatt, glänzend; seitlich gesehen, fast dreieckig, so lang wie hoch. Stirn kurz, durch eine schwarze Querleiste vom Scheitel getrennt. Gesicht viel länger als die Stirn, stark gewölbt. Wange kaum kürzer als das kreisrunde, kahle Auge, stark gewölbt. Ocellen ein gleichschenkliges Dreieck bildend, die hinteren um mehr als ihren Durchmesser vom Auge getrennt, noch weiter voneinander entfernt. Antenne das Abdomen weit überragend, 13 gliedrig, Scapus ventral erweitert, wenig länger als das 2. Glied, dieses kaum länger als dick, 3. fadenförmig, vier bis fünf mal so lang wie dick, die folgenden kaum länger als das 3., von oben gesehen fünf bis sechs mal so lang wie dick, stark seitlich zusammengedrückt, von der Seite gesehen 2 mal so hoch wie das 3., fast drei mal so lang wie breit, das Flagellum daher riemenförmig.

Thorax sehr lang, gut drei mal so lang wie hoch, glatt, glänzend, wenig gewölbt. Pronotum etwas länger als breit, weit vor den Tegulæ aufhörend, mit einem Mittellängseindruck. Mesonotum kaum länger als das Pronotum, sehr fein punktiert; Parapsidenfurchen durchlaufend, vorn divergierend. Scutellum so lang wie das Mesonotum und starker gewölbt, länglich, hinten abgerundet. Metathorax sehr klein.

Flügel glashell, das Abdomen um ein Drittel überragend; Vorderflügel in den distalen zwei Drittel allmählich erweitert, am Ende breit abgerundet, Wimperhaare des Hinterrandes ein Viertel so lang wie die grösste Flügelbreite, Flügelfläche mit 5 bogenförmig gekrümmten Längsreihen von kleinen Haaren, Subcostalis das proximale ein Viertel kaum überragend, am Ende kolbig verdickt. Hinterflügel sehr schmal, zugespitzt, Wimperhaare viel länger als die Flügelbreite. Vorderbein nahe am Vorder-

ende, Mittelbein und Hinterbein nahe am Hinterende des Thorax entspringend; Coxa und Trochanter des Vorderbeines lang, bis unter die Tegula reichend, Bein dünn wie auch das Mittelbein; Hinterbein stark verlängert, Coxa und Trochanter zusammen den Petiolus überragend, verdickt wie auch das Femur, die Tibia und der Metatarsus, Tibia und Metatarsus mit langen abstehenden Haaren, die Haare vier bis fünf mal so lang wie die Dicke des Beines, Metatarsus zwei mal so lang wie die 3 folgenden Glieder zusammen, diese dünn und länglich. Petiolus lang, zwei Drittel so lang wie der Thorax, etwas länger als das übrige Abdomen, dieses ellipsoidal, die Mitte des hinteren Femur nicht erreichend.

Länge, 2 Millimeter.

LUZON, Laguna, Berg Maquiling (*C. F. Baker*).

II. BEITRAG ZUR COLEOPTEREN FAUNA DER PHILIPPINEN

Von W. SCHULTZE

(Manila, P. I.)

MIT ZWEI TAFELN

PAUSSIDÆ

PROTOPAUSSINÆ

Genus **MONOPAUSSUS** novum

Körperform länglich, flach gedrückt, halb so breit wie lang; Seiten der Flügeldecken parallel. Kopf relativ gross. Lippentaster dreigliedrig, das dritte Glied doppelt so lang wie das zweite. Maxillartaster viergliedrig, erstes Glied das kleinste, konisch, zweites Glied das längste, keulenförmig, das dritte Glied ebenfalls konisch jedoch sehr kurz, viertes Glied sehr gross und becherförmig. Fühler elfgliedrig, perlschnurförmig.

Type, *Monopaussus piceus* sp. nov.

Dieses Genus unterscheidet sich von *Protopaussus* besonders durch das letzte Maxillartasterglied und durch das ganz anders geformte Halsschild und die Flügeldecken. Erwähnt Fowler¹ im besonderen die ausgesprochene Ähnlichkeit von *Protopaussus* mit Carabidenformen, so kommt das Genus *Monopaussus* den letzteren noch näher.

Monopaussus piceus sp. nov. Tafel I, fig. 3 a-b.

Pechbraun. Kopf, kräftig punktiert, drittes und viertes Glied der Maxillartaster hellbraun. Fühler, erstes und letztes Glied ungefähr gleich lang, zweites Glied am kleinsten. Halsschild mässig gewölbt, doppelt so breit wie lang, Seitenrand in der Mitte ausgebuchtet mit dem Vorderrand verrundet, mit dem Hinterrand eine scharfe Ecke bildend. Hinterrand gradlinig. Halsschild sowie Flügeldecken äusserst kräftig und sehr dicht grubenartig punktiert. Aus jedem der Punkte entspringt ein nach hinten gerichtetes Haar. Unterseite fein und weitläufig punktiert und fein behaart. Maxillartaster, Fühler und die etwas heller bräunlichen Beine ebenfalls behaart.

Länge, 4 Millimeter.

LUZON, Rizal, Montalban (*A. de los Reyes*).

Type in meiner Sammlung.

¹ Fauna Brit. India, Coleoptera (1912), 448.

PAUSINÆ

Genus PSEUDOPAUSSUS novum

Körperform länglich oval. Kopf dicht an das Halsschild anschliessend. Augen verhältnissmässig klein. Fühler der beiden Geschlechter verschieden geformt, viergliedrig, das letzte Glied keulen- oder eiförmig. Halsschild ungefähr ein Drittel breiter wie lang, mässig gewölbt. Seitenränder vor der Mitte in gleichmässigem Bogen ausgebuchtet, nach hinten zu verengt, am Hinterrand eine scharfe Ecke bildend. Flügeldecken gleichmässig gewölbt.

Type, *Pseudopaussus monstrosus* sp. nov.

Pseudopaussus monstrosus sp. nov. Tafel I, fig. 1 a-d, und fig. 2.

Rotbraun, Fühler und Beine etwas heller. Kopf dicht punktiert, nächst der Fühlerbasis etwas geschwollen. Lippentaster dreigliedrig, letztes Glied sehr gross und becherförmig. Maxillartaster viergliedrig, erstes Glied sehr klein, zweites und drittes Glied gleich lang, viertes Glied am längsten und am Ende zugespitzt. Halsschild und Flügeldecken dicht und regelmässig punktiert und fein behaart. Letztere mit einer feinen Furche nächst der Naht, die sich hinten mit derselben vereinigt. Naht und Hinterrand der Flügeldecke verrundet. Unterseite und Beine gleichmässig punktiert und fein behaart.

♂ : Erstes Fühlerglied an der Basis verengt, nach vorn kugelig aufgetrieben, zweites Fühlerglied sehr klein, drittes verschmolzen mit dem sehr grossen eiförmigen vierten Fühlerglied. Letzteres mit einer Rinne die über der Mitte in der Längsrichtung und vorn um das Glied herumläuft.

♀ : Erstes Glied grösser als das zweite und dritte, zweites am kleinsten. Viertes Glied sehr gross, keulenförmig, in der Mitte etwas gewölbt. Die Fühler beider Geschlechter sind äusserst fein punktiert und fein und dicht behaart, sowie mit vereinzelt längeren Börstchen besetzt.

Länge: ♂, 3.8 Millimeter; ♀ 3.5.

LUZON, Rizal, Montalban (*A. de los Reyes*).

Typen in meiner Sammlung.

Diese Art wurde von meinem Sammler in Anzahl unter Baumrinde und in Baumlöchern zusammen mit Ameisen gefunden, letztere wahrscheinlich zum Genus *Pheidole* gehörig. Herr McGregor fand auch diese Art auf der Insel Biliran; ebenso fing ich ein Exemplar in Manila am Licht.

CERAMBYCIDÆ

Proteuclea sulphureomaculata sp. nov. Tafel I, fig. 5.

Schwarz, rotbraun tomentiert. Kopf: Lippentaster rot, das letzte Glied schwarz. Fühler schwarz. Stirn zerstreut punktiert, mit deutlicher nicht tomentierter Mittelleiste die auf dem Scheitel in eine feine Furche ausläuft. Halsschild ein wenig breiter wie lang, mit kräftiger jedoch sparsamer Punktierung; Seiten mit einem warzenartigen Höcker nächst dem Vorderande. Die Tomentierung wird durch die Punktierung unterbrochen. Flügeldecken kräftig zerstreut punktiert, die Tomentierung in der vorderen Hälfte schwach, nach den Hinterrändern zu kräftiger und durch kleine schwarze Flecken unterbrochen. In der Mitte jeder Flügeldecke am Seitenrande, nach vorn gerichtet, ein grosser länglich-ovaler schwefelgelber Fleck. Unterseite und Beine sehr kräftig tomentiert, nur spärlich durch kleine schwarze Flecken unterbrochen.

Länge, 18 Millimeter; Breite, 5.8.

LUZON, Benguet, Berg Santo Tomas, in einer Höhe von ungefähr 2,400 Meter (*W. Schultze*). Ein zweites Exemplar vom selben Fundort (*O. Schultze*).

Type in meiner Sammlung.

Diese Art ist relativ gedrungener gebaut als *P. laterivitta* Heller die mir aus Luzon, Laguna, Paete, gesammelt von R. C. McGregor, vorliegt.

SCARABÆIDÆ

CETONINÆ

Astraea benquetia sp. nov. Tafel I, fig. 7.

Sammtschwarz, Kopf glänzend und kräftig punktiert. Clypealvorderrand mässig ausgebuchtet, je seitlich am Vorderrand ein vorstehender rötlicher Haarbüschel. Der mittlere Teil des Clypeus wulstartig erhaben, eine dreieckige Form bildend, die in einen Kiel auf dem Scheitel ausläuft. Seitlich dieses Kieles ist die Punktierung besonders kräftig und behaart. Je ein kleiner länglicher weisslich-gelber Tomentfleck nächst den Augenvorderecken. Thorax: Seitenrand glänzend. Längs desselben ein schmaler Tomentstreifen nicht bis an die Hinterecken reichend. Auf dem Disk über dem Schildchen ein Längsfleck, seitlich davon am Hinterrande je ein runder Fleck und über diesen

je zwei weitere kleinere Flecke. Schildchen mit einem Längsfleck in der Spitze. Schultern behaart und mit einem grossen länglichen Fleck. Flügeldecken schwach weitläufig reihenförmig punktiert und mit wenigen Längsnadelrissen. Schulterecken kräftig vorstehend. Jede Flügeldecke mit elf Tomentflecken die wie folgt verteilt sind. Zwei kleine nächst den Schulterecken, ein grösserer strichförmiger am Seitenrand nächst der Flügelbasis, drei weitere im diskalen Teil, zwei davon vor der Mitte und einer auf dem letzten Viertel. Drei weitere Flecken am Aussenrand, von welchen der mittlere der grösste ist und zwei kleine nächst dem Hinterrand. Die Naht verläuft in eine mässig ausgeprägte Spitze. Das Pygidium ist sehr dicht nadelrissig fein behaart und in der Mitte, etwas nach unten zu, zu einem Buckel aufgetrieben. Je seitlich ein grosser dreieckiger Tomentfleck. Nur der Buckel schwarz. Unterseite und Beine glänzend schwarz und fein behaart. Mittelbrust kräftig kreisförmig nadelrissig, dicht behaart und mit einem dreieckigen Tomentfleck am Vorderrand. Hinterbrust ebenfalls nadelrissig. Abdominalsegmente nach den Seiten kräftig weitläufig punktiert, nach der Mitte zu schwächer. Hinterränder der Segmente, mit Ausnahme der zwei letzten, seitlich mit schmalen Tomentstreifen, die des ersten und zweiten Abdominalsegmentes laufen makelartig zusammen.

Länge, 16 Millimeter; Breite, 8.5.

LUZON, Benguet, Berg Santo Tomas, in 2,400 Meter Höhe (Frau M. Schultze).

Type in meiner Sammlung.

Protaetia igorota sp. nov. Tafel I, fig. 6.

♂: Metallisch grün glänzend. Clypealvorderrand schwach aufgebogen und seicht gekerbt. Kopf kräftig dicht und unregelmässig punktiert, nur der Scheitel ohne Punkte. Clypeus nächst den Augenwinkeln mit je seitlich einem kleinen länglichen Tomentfleck. Stirn sowie Ränder des Kopfes über den Augen gelblich-braun behaart. Fühler dunkelgrün. Thorax kräftig weitläufig punktiert, im diskalem Teil nächst dem Schildchen ohne Punkte. Längs des Seiten- und Vorderrandes ein schmaler gelblich-weisser Tomentstreifen, im diskalen Teil je seitlich, nach vorn gerichtet, ein keilförmiger und darüber je zwei kleine runde Tomentflecken. Schultern, Unterseite des Thorax, sowie Seiten der Abdominalsegmente kräftig behaart. Schildchen glatt. Flügeldecken fein, weitläufig und reihenförmig punktiert. Nächst den Schulterecken je zwei Tomentflecken, ein grösserer und darunter nahezu zusammenhängend mit letzterem

ein kleinerer. In der Mitte jeder Flügeldecke an der Naht ein grosser und im hinteren Viertel ein etwas kleinerer Tomentfleck, durch einen feinen irregulären Streifen längs der Naht mit einander verbunden. Längs der Seiten- und Hinterränder der Flügeldecken ein makelartig erweiterter Tomentrandstreifen, die Naht in eine schwache Spitze verlaufend. Das Pygidium ist fein und weitläufig quer nadelrissig skulptiert und fein behaart. Von der unregelmässig makelartigen Tomentierung bleibt nur ein Längsstreifen in der Mitte des Pygidiums frei. Schenkel und Schienen kräftig behaart. Mittelschenkel unterseits nächst dem Kniegelenk mit einem kleinen Tomentfleck. Abdominalsegmente dunkel kupfrig-metallisch glänzend mit je einem Randfleck und seitlich einem länglich ovalem Tomentfleck.

♀ : Flügeldecken dunkel kupfrig-metallisch glänzend, Beine sowie Abdomen schwarzbraun metallisch. Die Tomentflecken am Seitenrande der Segmente nur schwach angedeutet, die der Unterseite sowie der des Mittelschenkels fehlen.

♂ : Länge, 19 Millimeter; Breite, 11. ♀ : Länge, 24 Millimeter; Breite, 14.

LUZON, Benguet, Berg Santo Tomas (M. und W. Schultze).

Typen in meiner Sammlung.

Diese Art erinnert etwas an *P. philippinensis* Fabr., ist jedoch grösser als diese und viel gedrungener gebaut.

Meine Frau und ich fingen von dieser Art 23 Exemplare im März, 1916, am Abhange des Berges Santo Tomas in ungefähr 2,000 Meter Höhe.

Unter dieser Anzahl befanden sich nur zwei Weibchen.

TROGINÆ

Trox manilensis sp. nov. Tafel I, fig. 4 und 4 a.

Schwarz, aschgrau tomentiert. Kopf mit zwei warzenartigen Buckeln auf der Stirn, der Rand fein beborstet. Thorax, längs der Mitte, mit einer seichten Rinne und kräftigen Längswülsten, am Hinterrand über dem Schildchen grubenartig eingedrückt, kräftig und weitläufig punktiert, Seitenrand fein beborstet, an den Hinterecken eingebuchtet. Jede Flügeldecke mit Andeutung von einem Buckel in der Mitte im letzten Viertel, desgleichen mit einer längs der Naht sowie vier weiteren kräftigen mit Tuberkeln besetzten Längsleisten, zwischen den letzteren je eine sekundäre Tuberkellängsleiste. Zwischen den primären und sekundären Längsleisten befinden sich reihenweise kräftige Punkte. Die Tomentierung ist durch schwarze Flecken unterbrochen,

welche wiederum in Längs- und Querreihen gruppiert sind. Unterseite und Beine, mit Ausnahme der Innenseiten der letzteren, ebenfalls tomentiert. Vorderer Teil der Vordertibia schaufelartig erweitert, etwas nach unten gebogen, der Aussenrand in der Mitte mit einem kräftigen Zahn. Innenrand sowie Seitenränder der Mittel- und Hintertibien ebenfalls fein beborstet.

Länge, 12.5 Millimeter.

LUZON, Manila (Frau M. Schultze).

Type in meiner Sammlung.

Diese Art wurde in 3 Exemplaren an Aas geköttert.

BEMERKUNGEN ÜBER CYCLOMATUS ZUBERI WATERHOUSE
(LUCANIDÆ). TAFEL II, FIG. 1-9

Vor einiger Zeit beschrieb Prof. Heller² eine Lucanidae, *Cyclomatus fuller-bakeri*, vom Berg Banahao, Provinz Laguna, Insel Luzon. Jedoch ist diese Art als solche nicht haltbar, sondern nur eine Form von *C. zuberi* Waterhouse, die Heller auch zum Vergleich herangezogen hat, und muss als Synonym zur letzteren Art gestellt werden. *Cyclomatus fuller-bakeri* ist die mesodonte Form von *C. zuberi* Waterh. An dem reichhaltigen Material dieser Art in meiner Sammlung ist es möglich die Formen von *C. zuberi* genau zu erkennen. Auf Tafel II habe ich versucht die Formenextreme dieser Art darzustellen. Unter den Männchen, Tafel II, Fig. 1-9, sind folgende Merkmale in den verschiedenen Entwicklungsstadien besonders zu erwähnen. Fig. 1, das kleinste unter meinem Material vorhandene Männchen, hat die Mandibel nahezu regelmässig gesägt. In Fig. 2 fangen die Zähne an sich abzugruppieren, d. h. die 2 nächst der Mandibel Basis, sowie 2 im letzten Drittel, sind näher aneinander gerückt und stärker entwickelt. Fig. 3 stellt eine Entwicklungsphase dar mit einem Doppelzahn nächst der Basis und einer Gruppe von Zähnen im letzten Viertel der Mandibel, von welcher der hinterste kräftig entwickelt ist. Fig. 4, 5 und 6 ähneln in der Mandibelbildung Fig. 3, nur zeigt sich, dass je stärker die Individuen entwickelt sind, der Doppelzahn der Basis relativ zur Entwicklung des Exemplares sich mehr oder weniger von dem Clypeus entfernt. Desgleichen ist der letzte Zahn der Gruppe im apikalen Viertel mehr oder weniger stark entwickelt. Teilweise bilden sich in der Mitte der Mandibeln, in den zuletzt

² Entom. Mitteil. (1915), 4, 291.

angeführten Entwicklungsphasen, ein oder mehrere kleine Zähne (Fig. 5, 6, 7). In der Form Fig. 7 zeigt sich deutlich das schon weit vorgeschrittene Vorrücken des Basaldoppelzahn; und charakterisiert sich diese Form, sowie die folgenden, besonders dadurch, dass der letzte Zahn im apikalen Viertel sich schaufelförmig erweitert. In noch kräftiger entwickelten Exemplaren (Fig. 8) zeigt sich eine Umbildung des basalen Doppelzahn zu einer einfachen spitzen Form, dabei ist zu bemerken, dass dieser letztgenannte Zahn mehr und mehr von der Basis ab nach vorn bis an, oder über, die Mitte zu vorrückt. Fig. 8½ stellt eine interesssante Monstrosität dar, in der an der rechten Mandibel der Basalzahn wie in der vorhergehenden Form gebildet, während an der linken Mandibel der Zahn schon etwas über die Mitte vorgeschoben ist. Dieses Exemplar ist in sofern interessant, als an der Mandibelbildung der Übergang zur mesodonten Form (Fig. 9, *fuller-bakeri*) leicht zu erkennen ist. Je nach der Entwicklung der Exemplare ist der Eindruck der Stirn und der des Scheitels des Kopfes kaum wahrnehmbar, Fig. 1; oder kräftig entwickelt, Fig. 7; oder als Extrem grubenartig vertieft, Fig. 9. Der Clypeus, welcher in kleinen Exemplaren sehr schwach entwickelt und abgeflacht ist, verlängert sich in grösseren Exemplaren. Sein Vorderrand biegt sich weniger oder sehr stark nach oben (Fig. 8–9). Die Weibchen von *C. zuberi* zeigen im Verhältnis zu den Männchen dieser Art sehr geringe Grössenunterschiede—Fig. 10, das kleinste Exemplar (18 mm.) meines Materials, und Fig. 12, das Grösste desselben (23 mm.). Zu bemerken ist, dass in beiden Geschlechtern, je nach dem Lebensalter der Exemplare, die Färbung variiert. Unter den Männchen gibt es kastanienbraune sowie graurotbraune Stücke mit bronzeartigem Schimmer. Die Mandibeln sind teilweise kupferbronzegrün, teilweise schwarz gerändert und intensiv rotbraun. Unter den Weibchen kommen Stücke vor mit schwarzbraunem Kopf und Halsschild.

Das Material welches ich zu diesen Beobachtungen heranzog wurde teilweise von Herrn R. C. McGregor und von meinem Sammler in Paete, Provinz Laguna, Luzon, in 49 Exemplaren beider Geschlechter gesammelt. Unter diesem Material befinden sich 9 Weibchen. Die folgende Tabelle, nach den Figuren der Tafel und den vorhandenen Exemplaren geordnet, ergibt folgende Formenproportionen:

TABELLE I.—Anzahl und Grösse der verschiedenen Exemplare von *Cyclomatus zuberi* Waterhouse die in Tafel II angegeben sind.

Fig.	Formen.	Exemplare.	Länge. ^a
			mm.
1.....	Priodonte.....	1	25
2.....	do.....	2	28
3.....	Amphiodonte.....	5	32
4.....	do.....	10	37
5.....	do.....	7	39
6.....	do.....	7	44
7.....	do.....	1	48
8.....	do.....	2	50
8½.....	(?).....	1	50
9.....	Mesodonte.....	4	56
Total.....	.....	40	.....

^a Die Grössen beziehen sich nur auf die auf der Tafel abgebildeten Exemplare.

Daraus wäre zu schliessen, dass Fig. 4–6 die häufigsten Männchen Formen dieser Art darstellen.

Am gleichen Fundort wurden ebenfalls von Herrn McGregor die folgenden Lucaniden-Arten in Anzahl gesammelt: *Odontolabis alces* Fabr., *O. camelus* Oliv., *O. latipennis* Hope, *Metopodontus occipitalis* Hope, *Aegus acuminatus* Fabr., *Nigidius laevicollis* Westw., und *Figulus manilarum* Hope.

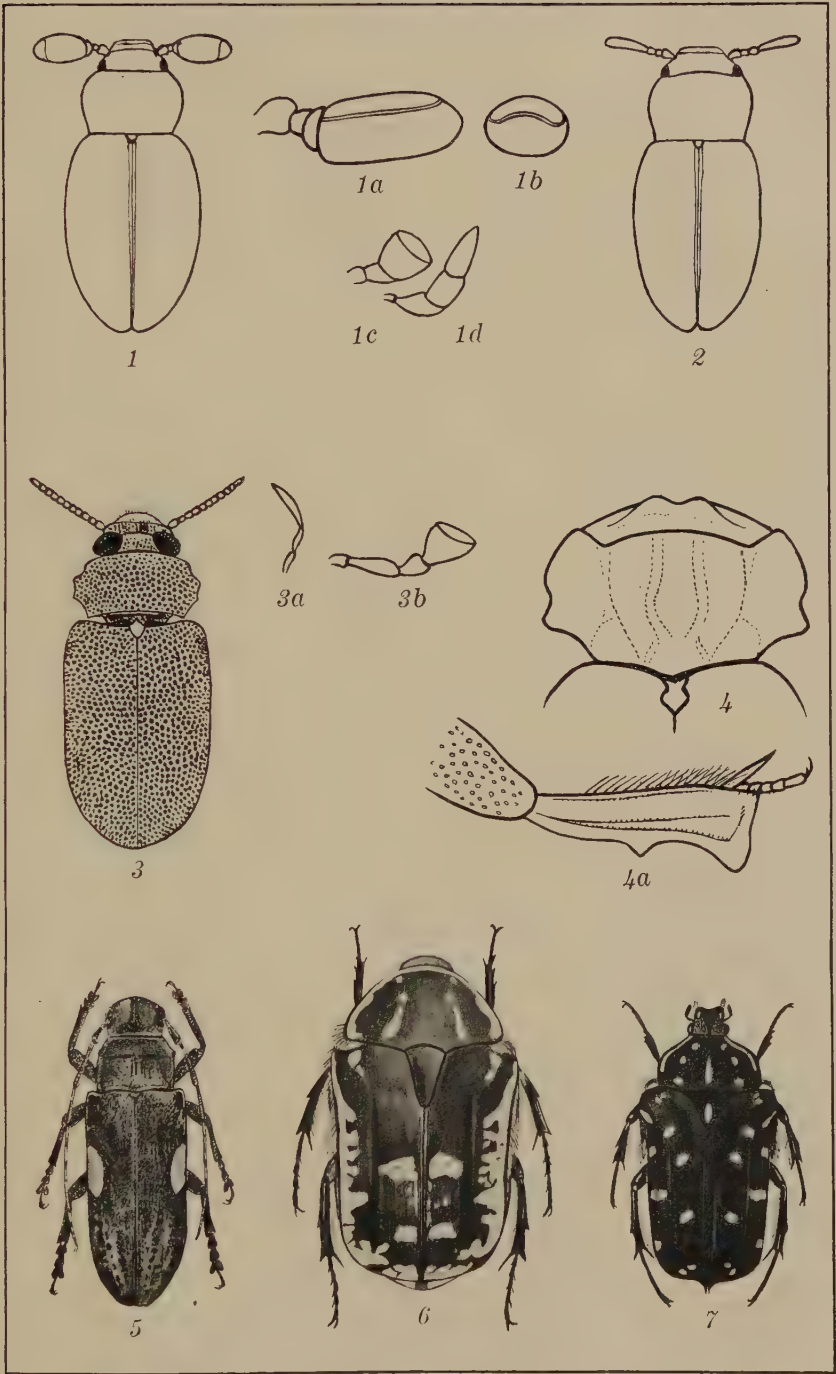
TAFELERKLÄRUNG

TAFEL I. NEUE PHILIPPINISCHE COLEOPTEREN

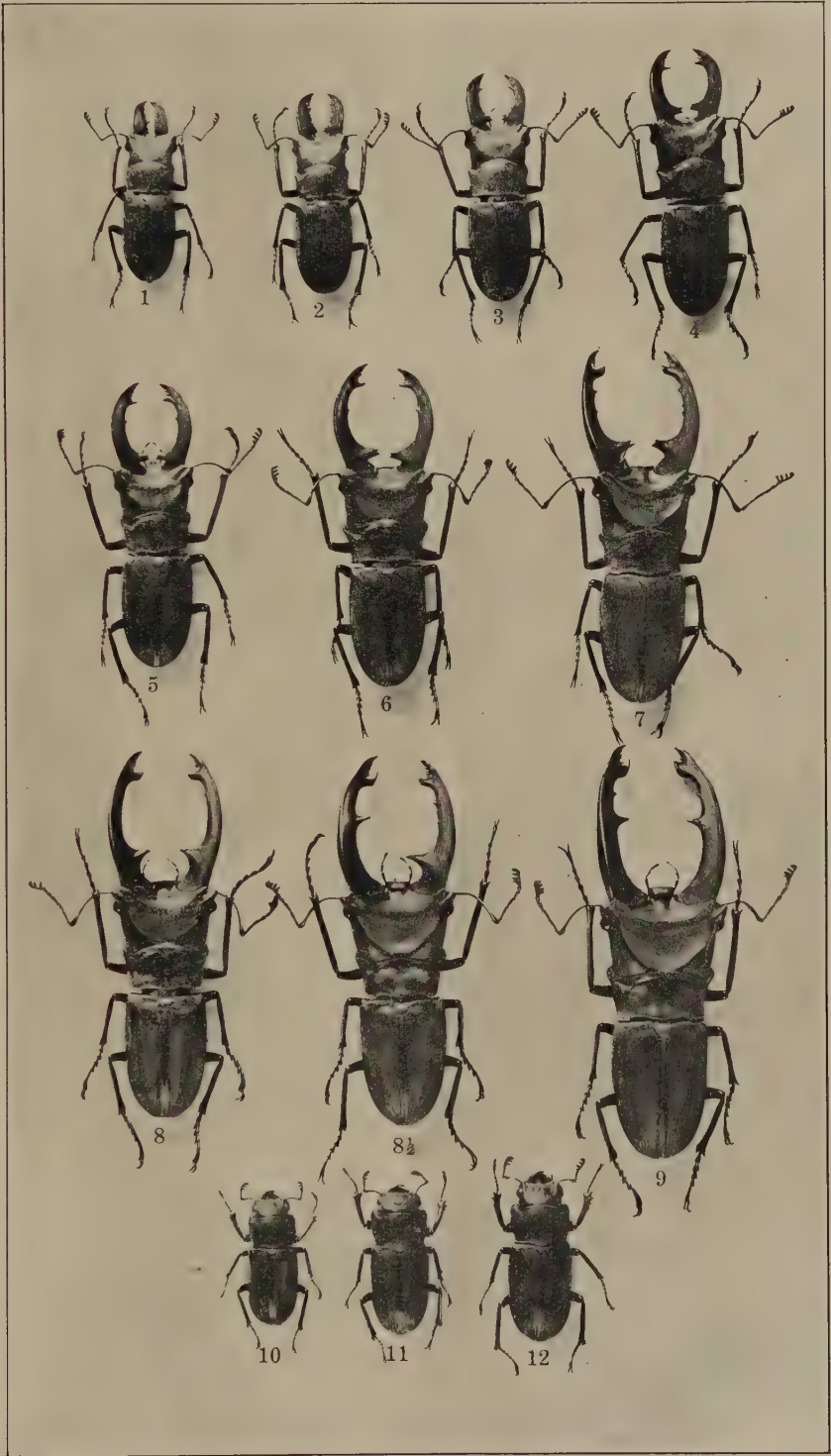
- FIG. 1. *Pseudopausus monstrosus* (? ♂) sp. nov.; 1a, Fühler; 1b, Fühler von der Spitze gesehen; 1c, Lippentaster; 1d, Maxillartaster.
2. *Pseudopausus monstrosus* (? ♀) sp. nov.
3. *Monopausus piceus* sp. nov.; 3a, Lippentaster; 3b, Maxillartaster.
4. *Trox manilensis* sp. nov.; 4a, linkes Vorderbein von unten.
5. *Proteuclea sulphureomaculata* sp. nov.
6. *Protaetia igorota* sp. nov.
7. *Astraea benguetia* sp. nov.

TAFEL II. FORMEN VON CYCLOMATUS ZUBERI WATERHOUSE

- FIG. 1-2. Priodonte Form.
3-8. Amphidonte Form.
8½. Monstrosität.
9. Mesodonte Form.



TAFEL I. NEUE PHILIPPINISCHE COLEOPTEREN.



TAFEL II. FORMEN VON CYCLOMATUS ZUBERI WATERH.

THE PHILIPPINE JOURNAL OF SCIENCE

D. GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

VOL. XI

SEPTEMBER, 1916

No. 5

THE CERATINID BEES OF THE PHILIPPINE ISLANDS

By T. D. A. COCKERELL
(*University of Colorado, Boulder*)

ONE TEXT FIGURE

The material on which this revision is based was received through the kindness of Professor C. F. Baker.

The family Ceratinidæ in the Philippine Islands includes two genera readily separated as follows:

- α^1 . Anterior wings with three submarginal cells..... *Ceratina* Latreille.
 α^2 . Anterior wings with two submarginal cells; never with metallic color
on body *Allodape* Lepeletier.

Genus *ALLODAPE* Lepeletier

Key to the species.

α^1 . Females.

- b^1 . With lateral face marks..... *palavanica* Ckll.
 b^2 . Without lateral face marks.
 c^1 . [Clypeal mark expanded above and below, narrowed in middle
(Formosa) *sauteriella* sp. nov.]
 c^2 . Clypeal mark not expanded below.
 d^1 . Very small, about 5 millimeters long..... *cupulifera* Vachal.
 d^2 . Larger, 6 millimeters or over.
 e^1 . Clypeal stripe broader; hair of hind legs whitish.
marginata Smith.
 e^2 . Clypeal stripe narrower; hair of hind legs reddish.
mindanaonis Ckll.

α^2 . Males.

- f^1 . Scape yellow in front..... *mindanaonis* Ckll.
 f^2 . Scape black.
 g^1 . Yellow clypeal mark much broader below than above.
reversa Ckll.
 g^2 . Yellow clypeal mark narrower below than above.
 h^1 . Very small, hardly 5 millimeters long; small lateral face marks
present *cupulifera* Vachal.
 h^2 . Larger; no lateral face marks..... *marginata* Smith.

The Philippine species of *Allodape* are very hard to classify, and the present treatment is obviously subject to revision. The species collected by Sauter, at Takao, Formosa, previously recorded by me¹ as *A. marginata* Smith, differs as stated above, and also has lateral face marks in the male; I accordingly call it *A. sauteriella* sp. nov.

Allodape marginata Smith.

Evidently common at Los Baños (Baker 315, 3657). According to Meade-Waldo, *Prosopis hewitti* Cameron, from Borneo, is a synonym. Another synonym is *Prosopis philippinensis* Ashmead, from Manila.

Allodape marginata picitarsis (Cameron).

This form, described from the Laccadive Islands, is not much over 5 millimeters long and is intermediate between *A. marginata* and *A. cupulifera*. A female from Baguio, Benguet (Baker 5012), agrees, so far as I can see, with a cotype of *picitarsis* in my collection. However, the form is so close to *A. marginata* that it may well represent an independent variation, unconnected genetically with true *picitarsis*.

Allodape mindanaonis Cockerell.

Typical females (Baker 3164), from Dapitan, Mindanao, are as large as *A. marginata* and are very closely allied to it. The variety *a*, from the same locality (Baker 3671), has lateral face marks, and the scape is yellow in front. Two females from Tacloban, Leyte (Baker 3668), are referred here, but possibly the male will show that the Leyte form is separable. They are of the smaller size, variety *a*. It appears that *A. mindanaonis* is a distinct species, the male being easily distinguished from *A. marginata*. It is possible, however, that the large and small Mindanao forms should be separated, in which case the male referred to will go with the smaller, described as var. *a*. This has the yellow of the upper part of the clypeus much more reduced than in the female of *A. marginata picitarsis*. As the variety *a* is now represented by several specimens, it may well take a name, as *Allodape mindanaonis reducta* var. nov. (type Baker 3163).

Allodape cupulifera bakeri var. nov.

Evidently abundant at Los Baños; also found on Mount Maquiling (Baker 3656, 3658). It is readily known from *A. marginata* by its smaller size. This Philippine form of *A. cupulifera*

¹ Ann. & Mag. Nat. Hist. (1911), VIII, 7, 231.

differs from the typical extra-Philippine insect, from the Asiatic mainland, by having the male scape entirely black. It may, therefore, take the name *A. cupulifera bakeri* var. nov.; type locality, Los Baños (*Baker 3655*).

Allodape palavanica sp. nov.

Female, 6.5 millimeters long; like *A. marginata*, but clypeus practically all yellow and narrow lateral face marks developed; hair of hind legs whitish as in *marginata*. Perhaps only a variety, but in view of the locality, probably a distinct species.

PALAWAN, Puerto Princesa (*Baker 5009*).

Allodape reversa sp. nov.

Male, 4 millimeters long, or slightly more; like *A. cupulifera*, but clypeus with the light area broadened below, covering the whole apical part; the vertical band very broad, but not expanded above; no lateral face marks; tarsi ferruginous. The scape is all black.

PALAWAN, Puerto Princesa (*Baker 5011*).

The accompanying female, from the same place (*Baker 5010*), does not materially differ from *A. cupulifera*. This may be no more than a variety of *A. cupulifera*. The whole group of *Allodape*, described above, is very compact and is uniform in the principal characters. Differences in the venation do not appear to be constant for particular species and races. In Luzon, Palawan, and Mindanao, as on the Asiatic mainland, large and small forms coexist. It is probable that each island, when well separated from the others or of any considerable size, has a race or species of its own; but if this is true, it may yet be found that the characters of these races are mainly or wholly confined (so far as external appearances go) to one sex, or are such as occur in occasional varieties in the other races. The further study of this problem should be in the hands of a resident naturalist.

Allodape jucunda Smith, which has been erroneously listed from the Philippine Islands, is a South African species.

Genus *CERATINA* Latreille

Three subgenera of *Ceratina* are represented in the Islands.

Key to the subgenera of Ceratina.

α^1 . Very bright emerald green; male abdomen with black spots.

Pithitis Klug.

α^2 . Black, with the thorax and abdomen above conspicuously marked with yellow *Ceratinidia* Ckll. and Porter.

α^3 . Small black species; thorax and abdomen above not marked with yellow.

Ceratina Latr.

Subgenus *Pithitis* Klug*Ceratina sexmaculata* Smith.

Apparently common at Los Baños (Baker 307, 3659). I have it also from India and Formosa.

Subgenus *Ceratinidia* Cockerell and Porter

Key to the species.

*a*¹. Males.

*b*¹. Clypeus dark, with a very broad transverse light bar, which has a median rounded lobe above..... *tropica* Crawford.

*b*². Clypeus all, or nearly all, yellow.

*c*¹. Cheeks, occiput, pleura, and legs entirely yellow.. *flavolateralis* Ckll.

*c*². Cheeks dark, with a yellow stripe.

*d*¹. Flagellum long, pale yellowish fulvous beneath, except the apex, which is broadly black..... *benguetensis* Ckll.

*d*². Flagellum short, dark.

*e*¹. Scape only partly light in front; yellow border of prothorax entire *philippinensis* Ashm.

*e*². Scape wholly light in front; yellow border of prothorax interrupted *compacta* Sm.

*a*². Females.

*f*¹. Lateral face marks divided.

*g*¹. Lateral face marks each divided into two spots.... *tropica* Crawford.

*g*². Lateral face marks divided, but the upper part elongated.

philippinensis humilior Ckll.

*f*². Lateral face marks forming continuous bands.

*h*¹. Marginal cell and region beyond fuliginous; pleura with a large vertical yellow band, constricted in middle..... *fuliginosa* Ckll.

*h*². Marginal cell not fuliginous; pleura without a vertical band.

*i*¹. Pleura with a yellow spot behind the tubercles.

philippinensis Ashm.

*i*². Pleura entirely black..... *philippinensis nigrolateralis* Ckll.

Ceratina philippinensis Ashmead.

The records of *C. hieroglyphica* Smith from the Philippines doubtless refer to this species, which is very closely allied. *Ceratina philippinensis* appears to be common at Los Baños (Baker 5); but it also occurs at Baguio, Benguet (Baker 4996); Butuan, Butuan, Mindanao (Baker 3653); Cagayan, Mindanao (Baker 3654); and on the Cuernos Mountains, Negros (Baker 3131). *Ceratina compacta* Smith was described from a supposed female from the Philippine Islands, but the description agrees almost exactly with the male of *C. philippinensis*. The only apparent differences are indicated in the preceding key to the species. *Ceratina compacta* was doubtless a male, and it is very probable that it is specifically identical with *philippinensis*, in which case it has priority.

Ceratina philippinensis nigrolateralis subsp. nov.

Female.—Rather small; length, 5 to 6.5 millimeters; yellow markings smaller than in *C. philippinensis*, no yellow spot on pleura behind tubercles. The two specimens received are possibly of different species, but probably indicate varieties only; they differ thus:

(a) *nigrolateralis*, type. Length, 6.5 millimeters; lateral face marks continuous; mesothorax with four short linear marks; second submarginal cell broad; first abdominal segment black with three rather small yellow marks (*Baker 3837*).

(b) *humilior* var. nov. Length, 5 millimeters; lateral face marks divided in middle, but upper division elongated (broad median clypeal band as in *philippinensis*); mesothorax entirely black; second submarginal cell very narrow; first abdominal segment yellow with a black mark on each side (*Baker 3836*).

PALAWAN, Puerto Princesa.

This species is close to *C. morawitzii* Sickmann, from Formosa, agreeing in the sculpture of the mesothorax. It differs from *morawitzii* by having, in the typical *nigrolateralis* form, only the fifth abdominal band entire, and in the *humilior* form the segments beyond the third without bands. I find, however, that *morawitzii* varies in the abdominal banding, so that, apart from geographical considerations, I would be inclined to call the Palawan insects varieties of *morawitzii* rather than of *philippinensis*. If the *philippinensis* type of *Ceratina* is derived from *morawitzii* and reached the Islands via the Malay Archipelago and Borneo, it is not surprising to find an intermediate form on Palawan. By the sculpture of the mesothorax, typical *philippinensis* is to be associated with *C. morawitzii* and not with *C. hieroglyphica*.

In this whole series we have to do with variable characters which here and there reach conditions of relative stability, permitting us to separate local races or species; but it may be that large series will show that the ranges of variation overlap or that the normal characters of one form are represented by occasional varieties of another. An easy way out of the difficulty would be to call all these insects by one name and simply remark that the species is variable; but this would obscure the very facts which we are most anxious to investigate. An intensive study of such a series may show that in the formation of allied races or species there has been no modification of the determiners or genes whatsoever, but that they have simply been sorted out in various combinations for heterozygous forms. Thus, supposing that *nigrolateralis* and *humilior*, described above, are

merely "individual varieties" of the same Palawan stock, it would be possible for a breeder in the course of time to sort them out and colonize each one on a separate island, producing what would then be regarded, by all ordinary rules, as two perfectly distinct species. On the other hand, we do not know without further inquiry that these forms have not already been ecologically isolated in some way, or are mutually infertile and now specifically distinct. The local collector, obtaining good series, especially of the males, may be able to decide.

The type of *C. morawitzii* came from China.

Ceratina fuliginosa sp. nov.

Female.—Length, about 9 millimeters; black, marked with yellow in the same manner as *C. philippinensis*, but the greater part of labrum and mandibles yellow; frontal spots little diverging; yellow of upper border of prothorax separated from that of tubercles; mesopleura anteriorly with a very broad, vertical yellow band, constricted in middle; posterior face of metathorax all yellow except triangular basal inclosure; middle and hind tibiae and tarsi without yellow; yellow band on second abdominal segment broad and continuous, of equal width throughout; a narrow apical band on fourth segment, but that on second is basal, as well as that on third. Wings dusky, the marginal cell and beyond strongly fuliginous; scape with the lower half yellow in front; underside of abdomen largely pale; coxae, especially the hind ones, marked with yellow; on underside of thorax yellow bands start from middle coxae and extend forward, converging to the middle line. Mesothorax densely punctured anteriorly.

PALAWAN, Puerto Princesa (*Baker 3338*).

A very distinct species, somewhat related to *C. ridleyi* Ckll., from Singapore, but easily known by the partly fuliginous wings and other characters.

Ceratina tropica Crawford.

Apparently widespread; specimens come from Los Baños, Luzon (*Baker 4*), and Dapitan, Mindanao (*Baker 3130, 3132*). The type locality is Manila.²

Ceratina flavolateralis sp. nov. Fig. 1a.

Male.—Length, about 8 millimeters; shining, bright chrome yellow, with the following parts black: Vertex, middle of front, upper part of supraclypeal area (the supraclypeal mark is very broadly triangular), mesothorax (except a broad yellow band

² See *Proc. U. S. Nat. Mus.* (1911), 38, 119; (1911), 39, 636.

on each side and two stripes on disk), area of metathorax (which is longitudinally impressed in middle), six very broad, entire bands on abdomen (the last with a yellowish patch in middle), and apical segment

(which is strongly bilobed, the lobes rounded and margined with ferruginous). Scape yellow; flagellum broken in type, but dark at base, reddish beneath; lateral face marks ending above, at level of lower ocellus, away from orbital margin; tegulæ amber-colored; wings rather dusky; stigma dull ferruginous; second submarginal cell very broad below, narrowed nearly to a point above; a strong keel between antennæ.

LUZON, Laguna, Los Baños (Baker 547).

This is the species reported from the Philippine Islands as *C. beata* Cameron. It is larger than true *beata* of Ceylon, Burma, and Tenasserim and is, I think, certainly distinct. Unfortunately descriptions of *beata* refer only to the female. *Ceratina kosemponis* Strand, from Formosa, is also allied, agreeing in many details of coloration, but with the end of the abdomen different.

Ceratina benguetensis sp. nov. Fig. 1b.

Male.—Length, about 7.5 millimeters; rather slender; black, with the following parts yellow: Mandibles, labrum, face (which is narrow) up to level of antennæ (except upper margin and corners of supraclypeal area), lateral face marks extending nearly halfway up sides of front, scape, narrow, obscure line along posterior orbits, lateral margins of the very smooth and shining mesothorax, prothorax (except a large patch on each side in front of tubercles), very large irregularly triangular patch on mesopleura, scutellum, triangular mark on axillæ, postscutellum, most of sides of metathorax (uniting posteriorly), triangular area (crossed by a black bar) beneath hind wings, middle of mesosternum (broadening behind), anterior legs (except reddish small joints of tarsi), middle trochanter (except black patch above), femur (except basal spot) and tibia, hind coxæ and trochanters in part, and three broad bands on abdomen, the third at base of third segment, the first (really base of first segment) united by a median yellow line with second. Flagellum long and slender, black above, pale fulvous beneath except the last two joints, which are an intense black, the last joint somewhat enlarged; tegulæ testaceous; wings very long,



FIG. 1. a, *Ceratina flavolateralis* Ckll., end of male abdomen; b, *Ceratina benguetensis* Ckll., end of male abdomen.

strongly dusky; stigma long, piceous; second submarginal cell narrowed above, but not nearly to a point; area of metathorax with a fine plicatulate sculpture; apex of abdomen broad, margined with testaceous, with a strong median tooth and with salient lateral angles; dorsal abdominal segments 4 to 6 with coarse black hair.

LUZON, Baguio, Benguet (*Baker 4997*).

A distinct and remarkable species, allied by the structure of the abdomen to *C. lepida* Smith (India and Assam) and to *C. ridleyi* Cockerell (Singapore).

Subgenus *Ceratina* Latreille

Ceratina dentipes Friese.

LUZON, Laguna, Los Baños (*Baker 314*).

This species was originally described from Buitenzorg, Java; it is allied to Palearctic species.

ILLUSTRATION

TEXT FIGURE

FIG. 1. *a*, *Ceratina flavolateralis* sp. nov., end of male abdomen; *b*, *Ceratina benguetensis* sp. nov., end of male abdomen.

A NEW FORMOSAN PUROHITA (DELPHACIDÆ)

By FREDERICK MUIR

(The Hawaiian Sugar Planters' Experiment Station)

Purohita maculata sp. nov.

Male.—Antennæ with first segment flattened and longitudinally keeled as in *Purohita cervina*, but not so wide; second joint about half the length of first, slightly flattened; flagellum longer than both joints together. Tegmen broader and its apex more rounded than in type; radial and median cross veins present.

Light bluish or yellowish green, more or less covered with a white waxy secretion; reddish brown over antennæ and basal half of face extending on to pronotum to base of tegmen; light bluish green over apical half of face extending over lateral edges of pronotum and on to pleura; pronotum darkish between carinæ; lateral carinæ of mesonotum brownish, slightly infuscate between carinæ; first and second tarsi and a line down first and second femora brown. Tegmina hyaline, slightly opaque with waxy secretion, small black spots along veins, largest at apical margin and at cross veins; wings hyaline, slightly opaque with waxy secretion, veins brown. Pygophor large, upper half cut away to base beside anal segment; a deep, narrow medio-ventral emargination extending to about middle; anal segment large, length twice the width, subparallel-sided, apex broadly rounded, anus in apical third; styles acutely angular, apex pointed, ædeagus complex.

Length, 3.7 millimeters; tegmen, 4.8.

Female.—Similar to the male, but slightly larger.

Formosa, Kanshirei (*H. Sauter and F. Muir*, February).

Living under the leaf sheaths of the broad-leafed bamboo (*Dendrocalamus*) among a mass of flocculent, waxy secretion. The nymphs are greatly flattened horizontally, antennal joints subequal and cylindrical; face with two median carinæ; hind tibial spur as in adult.

NITIDULIDÆ (COLÉOPTÈRES) DES ILES PHILIPPINES
RECOLTÉS PAR C. F. BAKER, II ¹

Par A. GROUVELLE
(Paris, France)

Stelidota octonotata sp. nov.

Oblonga, convexa, fere, nitida, brevissime, tenueque flavo-albido setosa, nigro-picea; prothoracis marginibus reflexis et in singulo elytro quatuor maculis ochraceis, antennis extra clavam pedibusque rufo-piceis clavae duobus primis articulis piceis, ultimo multo dilutiore. Caput fere dense punctatum. Prothorax antice valde, postice vix angustatus, lateribus rotundatus, rugosulus, subdense et plus minusve valde punctatus; marginibus lateralibus late explanatis. Elytra longiora quam simul in maxima latudine latiora, marginibus sat late explanata, lineato-punctata, punctis apicem versus attenuatis; lineis punctatis et suis intervallis lineato-setosis, intervallis alternis magis elevatis et lineis setosis magis validis et ex parte subinfuscatis ornatis. Stria marginalis coxarum posticarum retrorsum acute angulose-producta. Pedes subincrassati; maris tibiis posticis subarenatis, apice breviter incrassatis.

Duos individus, ♂ et ♀.

Long., 2.2-2.5 millimètres.

LUZON, Laguna, Mons Maquiling. MINDANAO, Butuan.

Oblong, un peu plus de deux fois plus long que large dans sa plus grande largeur, convexe, presque brillant, couvert de petites soies flaves-blanchâtres, en partie un peu rembrunies, disposées en ligne sur les lignes de points des élytres et sur leurs intervalles, noir de poix; marges réfléchies du prothorax et quatre taches sur chaque élytre jaunâtres; antennes sauf la massue et pattes roux de poix; 1^{er} et 2^{me} article de la massue rembrunis, 3^{me} beaucoup plus clair; massue des antennes relativement épaisse, environ une fois et demie plus longue que large, dernier article plus long et plus étroit que les précédents.

Tête plus de deux fois plus large que longue, subtronquée au bord antérieur, fortement sinuée en avant des insertions des antennes, subdéprimée, ruguleuse, et presque densément ponctuée sur le front. Plus finement ruguleuse sur l'épistome, marquée de chaque côté près de la base de l'antenne d'une petite impression ponctiforme, oblique.

¹ Cf. *Phil. Journ. Sci., Sec. D* (1914), 9, 531.

Prothorax fortement rétréci en avant, très faiblement à la base, arrondi sur les côtés, beaucoup plus de deux fois plus large dans sa plus grande largeur que long, rugueux et ponctué de points presque transversalement rapeux. Bord antérieur échan-cré, finement rebordé de chaque côté; angles antérieurs obtus, un peu émoussés; côtés finement rebordés, brièvement sinués à la base, lorsqu'ils sont vus latéralement; marges latérales largement explanées surtout vers les extrémités; angles postérieurs obtus; à la base très finement asquée dans le milieu, très faiblement subsinuée de chaque côté, rebordée. Ecusson trapézoïdal, largement arrondi au sommet, très transversal, légèrement convexe, pointillé.

Elytres faiblement sinués à la base, à peine plus larges à la base que la base du prothorax, en angle un peu obtus aux épaules, arqués sur les côtés, à peine élargis, brièvement et séparément arrondis à l'extrémité, une fois et demie plus longs que larges ensemble dans leur plus grande largeur; ponctué en lignes; points presque transversaux dans la partie basilaire, atténués vers le sommet; intervalles alternes plus relevés que les autres, lignes de soies de ces intervalles plus accentuées, en partie un peu rembrunies. Première tache jaunâtre de chaque élytre basilaire, près de l'écusson; 2^{me} contre la marge réfléchie assez près de la base, un peu plus grande que la première; 3^{me} peu accentuée, en arrière de la 1^{ère}, formant un carré avec la tache basilaire et les taches correspondantes de l'autre élytre; 4^{me} transversale, un peu ondulée, vers le deuxième tiers de la longueur, atteignant, presque la suture et la marge réfléchie. Lignes marginales des hanches postérieures présentant une saillie aigue, atteignant presque le sommet du segment, se raccordant en dehors, avec la hanche, par une partie longitudinale.

Voisine comme distribution des taches claires de *S. octomaculata* Say.

Amystrops camptoides sp. nov.

Ovatus, abdominis, apice, acuminatus, modice convexus, nitidulus, subglaber, subfulvo-testaceus, capite prothoraceque paulo dilutior. Antennae subbreves; 1^o articulo incrassato, intus valde rotundato-producto, clava fere sesquilingiore quam latiore, apice breve obtuseque acuminato-pulvinata. Caput transversissimum, convexiusculum, antice vix sinuatum, dense punctulatum; oculis productis, temporibus haud indicatis, lateribus ante oculos retrorsum valde convergentibus. Prothorax transversissimus, antice valde, postice vix angustatus, margine antico medio truncato, utrinque antrorsum late rotundato-producto;

lateribus parallelis, stricte concavo marginatis; angulis posticis acutis, retrorsum productis; basi medio utrinque validius subsinuata. Scutellum triangulare, transversum. Elytra humeris rotundata, lateribus arcuata, vix ampliata, apice subtruncata, breviora quam simul in maxima latudine latiora; elytrorum angulis suturalibus obtusis. Pygidium apice rotundato-productum.

Un individu, ♂.

Long., 2 millimètres.

LUZON, Laguna, Mons Maquiling.

Oblong, environ une fois et demie plus long que large dans sa grande largeur, médiocrement convexe, faiblement brillant, presque glabre, testacé-ferrugineux, très assombri vers le sommet des élytres, un peu plus clair sur la tête et le prothorax, très finement ponctué. Antennes presque courtes; 1^{er} article fortement dilaté arrondi en dedans, à peine plus long que large, 2^{me} un peu épaissi par rapport au 3^{me}, très nettement plus long que large, 3^{me} subégal au 2^{me}, environ deux fois plus long que large; 4^{me}, 6^{me}, et 7^{me} subcarrés, 5^{me} un peu plus long que 4^{me}, 6^{me}, 7^{me}, et 8^{me}, s'épaississant progressivement, le dernier très transversal; 9^{me} à 11^{me} formant une masse accentuée, suboblongue, environ une fois et demie plus longue que large, dont le dernier article, subégal aux deux autres, est presque en forme de bouton conique, surbaissé, émoussé.

Tête un peu plus de deux fois plus large que longue, légèrement convexe, densément et finement pointillée, à peine sinuée au bord antérieur, très légèrement impressionnée de chaque côté vers la naissance de l'antenne. Bords latéraux fortement convergents en arrière avant les yeux, fortement sinués en avant de ceux-ci, vers l'insertion de l'antenne; épistome peu saillant, atténué en avant; labre petit; yeux saillants, tempes nulles.

Prothorax très rétréci en avant, à peine à la base, arrondi sur les côtés, environ deux fois et un tiers plus large dans sa plus grande largeur que long; bord antérieur tronqué au milieu; saillant en avant de chaque côté en forme de lobe arrondi, côtés bordés par un très fin bourrelet et par une étroite marge concave; angles postérieurs aigus, saillants en arrière; base largement et très faiblement sinuée au milieu, plus fortement de chaque côté, ponctuation très fine sur le disque, plus forte sur les côtés, confluyente, dessinant presque des strigosités transversales. Ecusson triangulaire environ deux fois plus large à la base que long.

Elytres sinués à la base de chaque côté de l'écusson, arrondis aux épaules, arqués sur les côtés, à peine élargis, subtronqués un peu obliquement au sommet, présentant des angles suturaux

obtus, à peine émoussés, nettement moins longs que larges ensemble dans leur plus grande largeur; marges latérales fortement infléchies surtout vers les épaules, très étroitement rebordés, sommet encore plus étroitement rebordé; calus huméraux un peu marqués, ponctuation rappelant à la base celle du prothorax, atténué vers le sommet. Pygidium du mâle triangulaire, déprimé, complété au sommet par un petit segment émoussé.

Très voisin de *A. bakeri* Grouv., distinct par sa taille plus petite (2 millimètres au lieu de 2.8), la massue des antennes plus longue, le prothorax et les élytres plus étroitement rébordés, etc.

EVANIIDEN (HYMENOPTERA) DER PHILIPPINEN

Von J. J. KIEFFER
(*Bitsch, Germany*)

Alle hier beschriebenen Arten wurden mir von Herrn Professor C. F. Baker zur Bestimmung gesandt.

Genus PAREVANIA Kieffer

Von dieser Gattung war bisher keine Art von den Philippinen bekannt. Die zwei folgenden Arten unterscheiden sich wie folgt:

- α^1 . Vorderer Teil der Basalis um seine doppelte Länge vom Pterostigma entfernt (δ ♀), Thorax und beim ♂ noch der Kopf rot oder rötlichgelb.
P. nitida sp. nov.
- α^2 . Vorderer Teil der Basalis nur um seine Länge vom Pterostigma entfernt,
Körper schwarz P. atra sp. nov.

Parevania nitida sp. nov.

♂ ♀ : Rötlichgelb (♂) oder rot (♀); Kopf des ♀, Abdomen, ausgenommen der Petiolus, und die Zähne der Mandibeln schwarz, das ♂ hat das Gesicht, die Antennen, das Sternum und den Petiolus gelb, das Flagellum dorsal braunrot, beim ♀ sind die Antennen schwarz oder schwarzbraun, die zwei proximalen Glieder rot, 3. und 4. gelb, der Petiolus in der hinteren Hälfte weisslich, in der vorderen dorsal schwarz, ventral gelb; Mandibel, ausgenommen die Zähne, und Beine gelb, am Hinterbein ist die Spitze der Coxa, das Femur sowie die Tibia schwarzbraun, das proximale Drittel der Tibia jedoch weiss, die zwei distalen Glieder des Tarsus schwach gebräunt.

Scheitel, Stirn und Gesicht gewölbt. Auge viermal so lang wie die Wange, mit der Mandibel durch eine Leiste verbunden. Kopf glatt und glänzend, bei starker Vergrösserung sehr fein punktiert. Ocellen ein Dreieck bildend, die hinteren gleichweit voneinander und vom Auge entfernt, etwas weiter vom Hinterrande des Kopfes. Gesicht ohne quere Erhebung vor den Antennen. Palpen blassgelb und sehr lang. Antennen vor der Augenmitte entspringend (♂ ♀), beim ♂ schlank, distal dünner, 3. Glied kaum länger als das 1. und 2. zusammen, dem 4. gleich, die folgenden allmählich verkürzt, 9. noch mehr als dreimal so lang wie dick; 3. Glied beim ♀ dünner als die folgenden, deutlich länger als das 1., gut anderthalbmal so lang wie das

4., dieses dreimal so lang wie dick, die folgenden allmählich verdickt und verkürzt, 10. noch doppelt so lang wie dick, Endglied länger. Thorax anderthalbmal so lang wie hoch. Schultern abgerundet. Pronotum, Mesonotum und Scutellum glatt und glänzend, Parapsidenfurchen tief nach hinten konvergierend. Vorderer Abschnitt des Mediansegmentes längsgestreift, der hintere grob netzartig gerunzelt wie die Metapleure und von dieser durch eine breite, oben glatte Rinne getrennt, Mesopleure weniger grob netzartig, oben mit einer glatten Stelle wie auch die Metapleure.

Flügel bräunlich getrübt, vorderer Abschnitt der Basalis um seine doppelte Länge vom Pterostigma entfernt, Nervulus distal von der Basalis, distaler Abschnitt der Cubitalis so gut entwickelt wie der proximale, ausgenommen am Grunde, distaler Winkel der Radialzelle kaum spitz, Cubitalzelle wenigstens so lang wie die vordere Discoidalzelle, beide rautenförmig. Hinterflügel mit 8 Frenalhäkchen. Metasternalfortsatz mit 2 kleinen divergierenden Zinken. Mittlere Coxa mit ihrer Spitze die hintere Coxa erreichend; am Hinterbein ist die Coxa glatt, die Tibia allmählich verdickt, beim ♂ wenig, beim ♀ viel länger als das Femur, längerer Sporn deutlich länger als die Hälfte des Metatarsus, dieser wenigstens so lang wie die 2 folgenden Glieder zusammen, Kralle distal mit einem kräftigen Zahn, dieser breiter als die Krallenspitze. Petiolus glatt, wenigstens so lang wie seine Entfernung vom Mesonotum, Abdomen eirund (♂ ♀).

Länge, ♂, 5.5 Millimeter; ♀, 6.

PALAWAN, Puerto Princesa.

Von *P. rubra* Cam. besonders durch die Leiste der Wange zu unterscheiden.

Parevania atra sp. nov.

♂ : Schwarz; Mandibeln rot, mit 3 schwarzen Zähnen, 2. Antennenglied rötlichbraun, Tibia und Tarsus der 4 vorderen Beine rotbraun. Kopf fast glatt, sehr fein punktiert, grau pubesziert, glänzend. Gesicht mit einer medialen Warze, ohne quere Erhebung vor den Antennen. Wange fast halb so lang wie das Auge, durch eine Leiste vom Gesicht getrennt. Antennen fadenförmig, etwas vor der Augenmitte entspringend, Scapus so lang wie das 2. und 3. Glied zusammen, 2. Glied so dick wie lang, 3. zwei und einhalbmal so lang wie dick, kaum kürzer als das 4., 5. dem 3. gleich, vorletztes noch doppelt so lang wie dick.

Thorax etwas länger als hoch, lateral und hinten grau pubesziert und netzartig gerunzelt, Propleure quergerunzelt. Schultern abgerundet. Mesonotum und Scutellum glatt oder äusserst fein punktiert, Parapsidenfurchen nach hinten stark konvergierend, medialer Abschnitt des Mesonotum hinten schmaler als die lateralen. Metanotum und vorderer Teil des Mediansegmentes netzartig, oberer Teil der Mesopleure fast glatt. Zinken des Metasternalfortsatzes verkümmert und sehr klein.

Flügel schwach getrübt, distaler Winkel der Radialzelle fast ein rechter, vorderer Teil der Basalis um seine ganze Länge vom Pterostigma entfernt, Nervulus distal von der Basalis, Cubitalzelle rautenförmig, fast so lang wie die vordere Discoidalzelle, Cubitalis und Discoidalis fast durchlaufend. Hinterflügel mit 7 Frenalhäkchen.

Mittlere Coxa so lang wie ihr Abstand von der hinteren, diese dorsal quergestreift, ventral sehr fein punktiert, hintere Tibia allmählich verdickt, längerer Sporn fast halb so lang wie der Metatarsus, dieser wenig länger als die 2 folgenden Glieder zusammen, Zahn der Kralle länger und breiter als die Krallenspitze. Petiolus glatt, etwas kürzer als sein Abstand vom Mesonotum, Abdomen eiförmig oder fast kreisförmig, mässig pubesziert.

Länge, 5.5 Millimeter; 4 ♂.

LUZON, Laguna, Los Baños.

Genus *EVANIA* Latreille

Von dieser Gattung waren 3 Arten von den Philippinen bekannt, nämlich *E. annulipes* Ashm., *E. impressa* Schlett., und *E. verrucosa* Schlett. Diesen füge ich folgende neue Arten hinzu:

α^1 . Thorax rot, Stirn von den Ocellen bis zu den Antennen grob längsgestreift, Beine haarig..... *E. pilosipes* sp. nov. ♀.

α^2 . Thorax schwarz, Stirn wenigstens in der Mitte ohne Streifen.

b^1 . Basalis in das Pterostigma mündend; Körper schwarz.

E. opaca sp. nov. ♂.

b^2 . Basalis in das Distale der Subcostalis mündend.

c^1 . Parapsidenfurchen fehlend oder nur durch ein Grübchen hinten angedeutet.

d^1 . Hinterbein wenigstens am Femur langhaarig.

e^1 . Hintere Tibia langhaarig, Mesonotum und Scutellum netzartig gerunzelt, Wange so lang oder zwei Drittel so lang wie das Auge *E. punctatierus* sp. nov. ♀.

e^2 . Hintere Tibia nicht haarig, Mesonotum grob punktiert, Scutellum längsrunzlig *E. luzonica* sp. nov. ♀.

d^2 . Hinterbein nicht haarig, ihre Tibia kurz bedornt.

E. punctatierus sp. nov. ♀.

c¹. Parapsidenfurchen durchlaufend.

f¹. Beine langhaarig.

g¹. Antenne wenig vor der Augenmitte entspringend, 3. Glied zwei und einhalbmal so lang wie das 4.

E. nigrithorax sp. nov. ♀.

g². Antenne fast dem Vorderende der Augen gegenüber liegend, 3. Glied nicht zweimal so lang wie das 4.

E. butuanensis sp. nov.

f². Beine nicht haarig, höchstens sehr fein und anliegend pubesziert.

h¹. Beine grösstenteils rot, Thorax dorsal grob und dicht punktiert, hintere Tibia beim ♂ kurz bedornt.... *E. rubripes* sp. nov. ♂ ♀.

h². Beine grösstenteils schwarz.

i¹. Vorletztes Antennenglied sechs- bis achtmal so lang wie dick (♂), Gesicht nicht gestreift..... *E. tenuicornis* sp. nov. ♂.

i². Vorletztes Antennenglied höchstens zwei- bis viermal so lang wie dick, Gesicht grob längsgestreift.

j¹. Scutellum grob längsgerunzelt, vorn punktiert, distales Stück der Radialis geschwungen.

E. annularis sp. nov. ♂ ♀.

j². Scutellum grob punktiert, distales Stück der Radialis nicht geschwungen.

k¹. Gesicht und Wange schwarz.

l¹. Basalis gerade, ausgenommen an den beiden Enden, der Subcostalis parallel.

E. philippinensis sp. nov. ♂ ♀.

l². Basalis bogig, der Subcostalis nicht parallel.

E. arcigera sp. nov. ♂.

k². Gesicht und Wange orangegelb..... *E. variiceps* sp. nov. ♂.

Evania opaca sp. nov.

♂ : Schwarz und fast matt, nur Palpen und Sporen rotbraun, Pleuren glänzend. Kopf sehr fein lederartig oder kaum merklich und sehr fein punktiert, dicht weiss pubesziert, ausgenommen Scheitel und Schläfe. Stirn kaum flach. Gesicht gewölbt, mit einer queren Erhebung vor den Antennen. Wange ein Drittel so lang wie das Auge, vom Gesicht nicht getrennt. Ocellen einen Bogen bildend, die lateralen weiter voneinander als vom Auge oder vom Hinterrande des Kopfes entfernt. Antennen der Augenmitte gegenüber entspringend, distal allmählich dünner, 3. Glied so lang wie das 1. und 2. zusammen, 2. quer, 4. deutlich kürzer als das 3., fast viermal so lang wie dick, vorletztes noch gut dreimal so lang wie dick.

Thorax fast doppelt so lang wie hoch. Schultern abgerundet. Mesonotum fein lederartig, lateral unpunktirt, medial sowie das Scutellum wenig dicht und mässig grob punktiert. Parapsidenfurchen durchlaufend, medialer Abschnitt des Mesonotum hinten kaum breiter als die lateralen. Mediansegment und Metapleure netzartig gerunzelt, hinterer Teil des Mediansegmentes tief eingedrückt und mässig pubesziert, Mesopleure grob und

dicht punktiert, oben glatt. Zinken des Metasternalfortsatzes divergierend.

Flügel schwach getrübt, Nervulus distal von der Basalis, Pterostigma ganz schwarzbraun, ohne weissen Grund, Basalis in den Grund des Pterostigma mündend, der Subcostalis nicht parallel, distales Stück der Radialis zuerst senkrecht nach dem Vorderende laufend, dann etwas schräg und einen spitzen Winkel mit ihm bildend, vordere Discoidalzelle mehr als doppelt so lang wie die Cubitalzelle, diese ziemlich quadratisch, Cubitalis und Discoidalis durchlaufend, die 2. Cubitalzelle distal ganz offen, indem die 2. Transverso-cubitalis nur durch eine durchscheinende Linie angedeutet ist und nicht, wie bei *E. appendigaster*, an ihren beiden Enden ausgebildet; Hinterflügel mit 12 Frenalhäkchen.

Mittlere Coxa um ihre doppelte Länge von der hinteren entfernt, diese ziemlich grob punktiert, längerer Sporn der hinteren Tibia kaum ein Drittel so lang wie der Metatarsus, dieser so lang wie die 3 folgenden Glieder zusammen, Zahn der Kralle breiter und kaum länger als die Krallenspitze. Petiolus glatt, glänzend, so lang wie sein Abstand von der Mitte des Scutellum, Abdomen lang elliptisch, dorsal schwach pubesziert.

Länge, 7 Millimeter.

LUZON, Laguna, Los Baños.

Von *E. appendigaster* besonders durch die Länge des Scapus und durch die distal ganz offene 2. Cubitalzelle zu unterscheiden.

Evania pilosipes sp. nov.

♀: Schwarz, mit abstehenden schwarzen Haaren, Thorax rot, ausgenommen der hintere Teil des Mediansegmentes und die untere Hälfte der Metapleure, Palpen braun, Vorderbein rotbraun bis schwarzbraun. Ocellen fast eine gerade Linie bildend, ihre Umgebung grob punktiert, die lateralen weiter voneinander als vom Auge oder vom Hinterrande des Kopfes entfernt. Stirn von den Ocellen bis zu den Antennen eingedrückt und grob gerieft, glänzend. Gesicht gewölbt, bis zum Munde grob längsgefurcht, vor den Antennen mit einer queren Erhebung, Wange mehr als halb so lang wie das Auge, grob fächerartig gefurcht, Schläfe längsgefurcht. Mandibel 3-zählig. Antenne dick, mit rotbraunem Schimmer, Scapus länger als die 3 folgenden Glieder zusammen, 3. Glied fast dreimal so lang wie das 4., dieses kaum länger als dick, die folgenden verdickt, kaum länglich, ausgenommen das dünne Endglied.

Thorax kaum länger als hoch, Schultern rechtwinklig. Mesonotum und Scutellum glänzend, mit zerstreuten, mässig groben Punkten, Parapsidenfurchen durchlaufend. Mediansegment

netzartig gerunzelt, wie die Metapleure, und von dieser durch eine breite Rinne getrennt, hinterer Teil des Mediansegmentes unten eingedrückt, dicht seidenartig pubesziert, wie der untere Teil der Metapleure und die hintere Coxa; Mesopleure unten grob punktiert und weiss pubesziert, oben glatt und glänzend. Zinken des Metasternalfortsatzes gross und stark divergierend.

Flügel schwach getrübt, Pterostigma schwarz, mit weissem Proximalende, Nervulus mit der Basalis zusammenstossend, Basalis gerade, der Subcostalis parallel und von ihr um ihre doppelte Dicke getrennt, in den weissen Grund des Pterostigma mündend, Cubitalzelle nur ein Drittel so lang wie die vordere Discoidalzelle, distaler Winkel der Radialzelle spitz, Cubitalis und Discoidalis durchlaufend; Hinterflügel mit 5 Frenalhäkchen.

Hinterbein stark verlängert, zweimal so lang wie der ganze Körper, mit langen grauen Haaren, diese weniger lang als die Dicke des Femur, mittlere Coxa um ihre Länge von der hinteren entfernt, diese matt, dorsal netzartig gerunzelt, ventral grob punktiert, längerer Sporn der hinteren Tibia ein Drittel so lang wie der Metatarsus, dieser so lang wie die 3 folgenden Glieder zusammen, Zahn der Krallen viel länger und breiter als die Krallenspitze, Gelenke aller Tarsen rötlich, wie der Grund der hinteren Tibia. Petiolus schräg gerunzelt, dorsal mit aufrechten Haaren, kaum so lang wie sein Abstand vom Mesonotum. Abdomen beilförmig.

Länge, 6 Millimeter.

MINDANAO, Butuan.

Evania punctaticrus sp. nov.

♂ ♀ : Schwarz; Mandibel rot, mit 3 schwarzen Zähnen, Palpen gelblich, Beine schwarzbraun, Knie und Tarsus der 4 vorderen Beine, vordere Tibia und alle Sporen rot, beim ♀ sind der Scapus ventral und die 3 folgenden Glieder rotbraun. Dorsal-seite des Kopfes, des Thorax und des Petiolus mit aufrechten, schwarzen Haaren. Kopf von vorn gesehen etwas länger als breit, sehr schwach pubesziert, glänzend. Scheitel runzlig, die Ocellen fast in gerader Linie, die lateralen kaum weiter voneinander als von den Augen entfernt, doppelt so weit voneinander als vom Hinterrande des Kopfes. Stirn schwach eingedrückt, mit einer feinen, durchlaufenden Längsleiste von der vorderen Ocelle bis zwischen die Antennen, glatt und glänzend, seitlich längsrunzlig. Gesicht gewölbt, grob längsgestreift, mit einer queren Erhebung vor den Antennen, mit einer durchlaufenden Mittellängsleiste. Wange fächerartig gestreift, beim ♀ so lang wie das Auge, beim ♂ nur halb so lang wie das Auge. Schläfe

grob längsrunzlig. Antennen des ♀ fast dem Vorderende der Augen gegenüber entspringend, Scapus länger als die 3 folgenden Glieder zusammen, 3. Glied dreimal so lang wie dick, 4. etwas verdickt, anderthalbmal so lang wie dick, die folgenden stark verdickt, 5. und 6. fast quer, die übrigen kaum länglich, ausgenommen das Endglied; Scapus des ♂ so lang wie das 3. Glied, dieses dreimal so lang wie dick, kaum länger als das 4., die folgenden allmählich verkürzt und dünner, vorletztes noch gut zweimal so lang wie dick.

Thorax etwas länger als hoch. Schultern rechtwinklig. Dorsalseite des Thorax beim ♀ grob netzartig gerunzelt, beim ♂ sind Mesonotum und Scutellum grob punktiert, die Punkte dicht, sich aber nicht berührend. Parapsidenfurchen fehlend, beim ♂ hinten durch ein Grübchen angedeutet, die laterale Rinne längs der Tegula breiter als gewöhnlich. Hinterer Teil des Mediansegmentes netzrunzlig, wenig dicht weiss pubesziert, wie der untere Teil der Metapleure und der Mesopleure, seitlich ohne Rinne, Metapleure und unterer Teil der Mesopleure netzrunzlig. Zinken des Metasternalfortsatzes divergierend.

Flügel fast glashell, Pterostigma lanzettlich, schwarzbraun, proximales Viertel weiss, Basalis der Subcostalis parallel, von ihr um zwei bis dreimal ihre Dicke entfernt, in das Distalende derselben mündend, distaler Winkel der Radialzelle spitz, vordere Discoidalzelle etwas mehr als doppelt so lang wie die Cubitalzelle, Cubitalis und Discoidalis durchlaufend, Nervulus mit der Basalis zusammenstossend, Hinterflügel mit 6 Frenalhäkchen, ohne deutliche Ader, wie alle hier beschriebenen Arten.

Beine des ♂ ohne lange Haare, aber Tibia und Tarsus des Hinterbeines mit sehr kurzen Dörnchen, mittlere Coxa um ihre Länge von der hinteren entfernt, hintere Coxa netzartig gerunzelt, Femur und Tibia des Hinterbeines beim ♀ mit aufrechten Haaren, diese kürzer als die Dicke des Beines, das Femur, wie üblich, ventral grob punktiert, Mittelbein schwächer behaart, längerer Sporn ein Drittel (♀) oder ein Halb (♂) so lang wie der Metatarsus, dieser etwas länger als die 3 folgenden Glieder zusammen, Zahn der hinteren Krallen so lang wie die Krallenspitze aber viel breiter. Petiolus grob längsrunzlig, so lang wie sein Abstand vom Mesonotum, Abdomen lang elliptisch (♂) oder beilförmig (♀).

Länge, 5.5 Millimeter.

MINDANAO, Dapitan. LEYTE, Tacloban.

Ein ♀ hatte die Wange zwei Drittel so lang wie das Auge, Antenne schwarz, Distalende der 3 proximalen Glieder und das ganze 5. Glied rot.

Evania luzonica sp. nov.

♀ : Schwarz; Palpen, Knie, Tibia und Tarsus des Vorderbeines rotbraun. Dorsalseite des Kopfes, des Thorax und des Petiolus mit schwarzen, aufrechten Haaren. Scheitel runzlig, Ocellen einen Bogen bildend, die lateralen so weit voneinander als vom Auge und vom Hinterrande des Kopfes entfernt. Stirn flach, mit 3 Längsleisten von den Ocellen bis zu den Antennen, dazu noch je 1 Längsleiste nahe am Auge, dazwischen gerunzelt. Gesicht gewölbt, dicht weiss pubesziert, grob längsgestreift, mit einer queren Erhebung vor den Antennen und einer groben durchlaufenden Mittellängsleiste. Wange halb so lang wie das Auge, grob gestreift, dicht weiss pubesziert. Schläfe längsrunzlig, mit zerstreuten groben Punkten. Antenne etwas vor der Augenmitte entspringend, Scapus schwach keulenförmig, fast so lang wie die 3 folgenden Glieder zusammen, wie diese dicht weiss pubesziert, 2. Glied länger als dick, 3. doppelt so lang wie das 4., dieses gut zweimal so lang wie dick, 5. um die Hälfte länger als dick, 6. und 7. so dick wie lang, die folgenden etwas dicker, deutlich länglich, Endglied länger.

Thorax länger als hoch. Schultern rechtwinklig. Mesonotum grob und ziemlich dicht punktiert, dazwischen fein runzlig, Parapsidenfurchen nur hinten durch eine Spur angedeutet. Scutellum grob punktiert, dazu längsrunzlig. Mediansegment vorn fingerhutartig punktiert, hinten netzrunzlig wie die Metapleure, ohne Eindruck aber weiss pubesziert, Mesopleure netzartig gerunzelt, unten weiss pubesziert wie der Grund der Metapleure. Zinken des Metasternalfortsatzes divergierend.

Flügel glashell, mit einem schwachen, bräunlichen Fleck hinter der Radialzelle und am Proximalende der hinteren Discoidalzelle, Nervulus mit der Basalis zusammenstossend, distaler Winkel der Radialzelle spitz, Basalis um ihre zwei- bis dreifache Dicke von der Subcostalis entfernt, dieser parallel, vordere Discoidalzelle mehr als doppelt so lang wie die Cubitalzelle, Hinterflügel mit 7 Frenalhäkchen.

Mittlere um etwas mehr als ihre Länge von der hinteren entfernt, hintere Coxa grob und dicht punktiert, Femur des Hinterbeines langhaarig, Haare weniger lang als die Dicke des Femur, längerer Sporn fast halb so lang wie der Metatarsus, dieser so lang wie die 4 folgenden Glieder zusammen. Petiolus grob schräg gerunzelt, so lang wie sein Abstand vom Mesonotum, Abdomen kahl, beilförmig.

Länge, 6 Millimeter.

LUZON, Laguna, Berg Maquiling.

Evania nigrithorax sp. nov.

♀: Schwarz; Palpen gelblich, Antennen rotbraun, vordere Tibia und alle Tarsen braunrot. Kopf ohne dichte Pubeszenz. Schläfe, Gesicht und Wange grob längsgestreift, die Wange zwei Drittel so lang wie das Auge, Gesicht mit einer queren Erhebung vor den Antennen. Stirn flach, mit 3 Längsleisten, deren laterale bogig von einer Ocelle bis zur Antenne laufen, ausserdem mit je 1 Längsleiste längs des medialen Augenrandes. Ocellen eine Querlinie bildend. Antennen sehr dick, wenig vor der Augenmitte entspringend, Scapus gekeult, so lang wie die 4 folgenden Glieder zusammen, 3. Glied dreimal so lang wie dick, zwei und einhalbmals so lang wie das 4., dieses um ein Drittel länger als dick, die folgenden kaum länger als dick, allmählich verdickt, Endglied länger. Kopf, Thorax und Petiolus mit langen, aufrechten, dunklen Haaren.

Thorax etwas länger als hoch. Schultern fast rechtwinklig. Mesonotum und Scutellum mit zerstreuten groben Punkten, Parapsidenfurchen durchlaufend, mittlerer Lappen des Mesonotum etwas breiter hinten als die lateralen. Mediansegment grob netzrunzlig, hinten dicht pubesziert und stark eingedrückt. Metapleure und untere Hälfte der Mesopleure netzrunzlig. Zinken des Metasternalfortsatzes divergierend.

Flügel schwach getrübt, Basalis um ihre doppelte Dicke von der Subcostalis getrennt und dieser parallel, Nervulus mit der Basalis zusammenstossend, vordere Discoidalzelle fast dreimal so lang wie die Cubitalzelle, distaler Winkel der Radialzelle spitz, Cubitalis und Discoidalis durchlaufend; Hinterflügel mit 6 Frenalhäkchen.

Am Hinterbein sind Trochantere, Femur und Tibia dicht und lang behaart, Haare so lang wie die Dicke des Beines, Mittelbein schwach haarig, mittlere Coxa um ihre doppelte Länge von der hinteren entfernt, Coxa des Hinterbeines grob netzrunzlig, längerer Sporn der Tibia ein Drittel so lang wie der Metatarsus, dieser so lang wie die 4 folgenden Glieder zusammen, wenigstens dreimal so lang wie das 2., Zahn der Kralle nicht länger aber breiter als die Krallenspitze. Petiolus lateral grob quer-gestreift, dorsal vorn punktiert, hinten fast glatt, länger als sein Abstand vom Mesonotum, Abdomen beilförmig.

Länge, 8 Millimeter; 4 ♀.

MINDANAO, Butuan.

Evania nigrithorax var. *sculptilis* var. nov.

♀: Von der Type durch folgende Merkmale zu unterscheiden: Mesonotum grob fingerhutartig punktiert, Scutellum

mit Längsrünzeln, dazwischen punktiert. Schläfe mit groben, zerstreuten Punkten, dazwischen matt oder schwach runzlig. Ocellen einen Bogen bildend. Hinterflügel mit 8 Frenalhäken. Haare der hinteren Tibia dicht und länger als die Dicke des Beines, Zahn der hinteren Krallen kürzer als die Krallenspitze und nicht breiter. Petiolus dorsal und lateral grob längsgerunzelt, in der hinteren Hälfte etwas schräg gerunzelt seitlich.

Länge, 8 Millimeter.

LUZON, Laguna, Paete.

Evania nigrithorax var. *distans* var. nov.

♀ : Nervulus deutlich distal von der Basalis. Im übrigen wie die Type.

Länge, 7.5 bis 8 Millimeter.

MINDANAO, Butuan.

Evania butuanensis sp. nov.

♀ : Einfarbig schwarz, nur Palpen und vordere Sporen rotbraun bis schwarzbraun. Gesicht und Wange grob längsfurcht, Wange zwei Drittel so lang wie das Auge, Gesicht mit einer queren Erhebung vor den Antennen. Stirn eingedrückt, grob runzlig, von 5 Längsleisten durchzogen. Ocellen einen Bogen bildend, die lateralen kaum weiter voneinander als vom Auge. Schläfe fast glatt, mit wenigen, zerstreuten, groben Punkten. Mandibel 3 zählig. Antennen fast dem Vorderende der Augen gegenüber liegend, Scapus nicht gekeult, kaum so lang wie die 3 folgenden Glieder zusammen, 2. Glied so dick wie lang, 3. fast doppelt so lang wie das 4., diese zweimal so lang wie dick, die folgenden verdickt, etwas länger als dick, dorsal mit rotbraunem Schimmer, 13. etwas länger als das vorletzte. Dorsalseite des Kopfes, des Thorax und der vorderen Hälfte des Petiolus mit aufrechten, schwarzen Haaren.

Thorax etwas länger als hoch. Schultern rechtwinklig. Mesonotum glänzend, mit zerstreuten groben Punkten, dazwischen fast glatt oder sehr fein punktiert, Parapsidenfurchen durchlaufend. Scutellum mit groben, dichten Punkten, seitlich runzlig-punktiert. Mediansegment vorn fingerhutartig punktiert, hinten netzrunzlig und dicht weiss pubesziert, wie der Grund der Metapleure, diese netzrunzlig, durch eine breite Rinne vom Mediansegment getrennt, Mesopleure glatt und glänzend, ausgenommen unten. Zinken des Meso- und des Metasternalfortsatzes stark divergierend.

Flügel fast glashell, distaler Winkel der Radialzelle spitz,

Proximalende des Pterostigma weiss, Basalis um ihre zweifache Dicke von der Subcostalis getrennt und dieser parallel, in das Distalende derselben mündend, Nervulus mit der Basalis zusammenstossend, vordere Discoidalzelle mehr als zweimal so lang wie die Cubitalzelle, Cubitus und Discoidalis durchlaufend; Hinterflügel mit 9 Frenalhäkchen.

Mittlere Coxa um anderthalbmal ihre Länge von der hinteren entfernt, diese grob fingerhutartig punktiert, Trochantere, Femur und Tibia des Hinterbeines mit langen Haaren, diese weniger lang als die Dicke der Beine, ausserdem hat die Tibia, wie auch der Metatarsus, sehr kleine gelbe Dörnchen, Metatarsus so lang wie die 4 folgenden Glieder zusammen, längerer Sporn der Tibia ein Drittel so lang wie der Metatarsus, Zahn der Kralle breiter, aber nicht länger als die Krallenspitze. Petiolus grob schräg gestreift, so lang wie sein Abstand vom Mesonotum, Abdomen beilförmig.

Länge, 8 Millimeter.

MINDANAO, Butuan.

Evania rubripes sp. nov.

♂ ♀: Schwarz; Mandibel, ausgenommen die 3 Zähne, Scapus beim ♂, die 5 proximalen Glieder der Antenne beim ♀, Beine, ausgenommen die Tarsen, und oftmals der Petiolus des ♀ rot; das ♂ hat meist die hintere Tibia schwarz, seltener rot mit schwarzem Distalende, ein ♂ hatte ausserdem noch alle Coxae and Trochanteren schwarz, Petiolus des ♀ bald rot, bald schwarzbraun mit rotem Schimmer. Kopf vorn weiss pubesziert. Scheitel runzlig-punktiert, Ocellen einen Bogen bildend, die lateralen gleichweit voneinander und von den Augen entfernt. Stirn eingedrückt, fast glatt, mit einer durchlaufenden Mittellängsleiste, seitlich grob längsgestreift. Gesicht gewölbt, mit einer queren Erhebung vor den Antennen, grob längsgestreift. Wange halb so lang wie das Auge, grob längsgestreift, Schläfe beim ♂ glatt, mit einigen zerstreuten Punkten längs der Augen, beim ♀ grob netzartig gerunzelt. Antennen beim ♂ wenig vor der Augenmitte, beim ♀ fast dem Vorderende der Augen gegenüber entspringend, Scapus des ♂ so lang wie das 2. und 3. Glied zusammen, 4. Glied dem 3. gleich, kaum dreimal so lang wie dick, 2. so dick wie lang, distale Glieder etwas dünner, vorletztes mehr als zweimal so lang wie dick; Scapus des ♀ so lang wie die 4 folgenden Glieder zusammen, 2. Glied kaum länglich, 3. zwei und einhalbmal so lang wie das 2., fast zweimal so lang wie das 4., 5. und die folgenden verdickt, so dick wie lang, ausgenommen die 3 letzten.

Thorax etwas länger als hoch. Schultern rechtwinklig. Mesonotum, Scutellum und Seiten des Prothorax grob und dicht punktiert, Parapsidenfurchen durchlaufend, mittlerer Lappen des Mesonotum hinten doppelt so breit wie die seitlichen. Mediansegment vorn fingerhutartig punktiert, hinten netzartig gerunzelt und weiss pubesziert. Metapleure ohne Rinne, netzrunzlig, Mesopleure glatt und glänzend, unten netzrunzlig. Zinken des Metasternalfortsatzes stark divergierend.

Flügel kaum getrübt, beim ♂ ungefleckt, beim ♀ hinter der Radialzelle und in der hinteren Discoidalzelle dunkelbraun, Basalis in das Distalende der Subcostalis mündend, dieser parallel und von ihr um ihre dreifache Dicke getrennt, Nervulus mit der Basalis zusammenstossend, distaler Winkel der Radialzelle spitz, vordere Discoidalzelle dreimal so lang wie die Cubitalzelle, Cubitalis und Discoidalis durchlaufend; Hinterflügel mit 6 oder 7 Frenalhäkchen.

Mittlere Coxa um etwas mehr als ihre Länge von der hinteren entfernt, hintere Coxa grob punktiert, Beine des ♂ nur sehr fein und anliegend pubesziert, Tibia und Metatarsus des Hinterbeines mit sehr kleinen Dörnchen; beim ♀ haben die 4 hinteren Beine Femur, Tibia und Metatarsus lang behaart, diese Haare so lang wie die Dicke der Beine, Tibia und Tarsus des Hinterbeines unbedornt; längerer Sporn fast halb so lang wie der Metatarsus, dieser kürzer als die 4 folgenden Glieder zusammen, Zahn der Kralle länger und breiter als die Krallenspitze. Petiolus seitlich schräg gerunzelt, beim ♂ fast so lang wie sein Abstand vom Mesonotum, beim ♀ kaum länger als sein Abstand vom Scutellum und dorsal mit langen, aufrechten Haaren, wie die Dorsalseite des Thorax, Abdomen beim ♂ fast kreisrund, kaum eirund, fein weiss pubesziert, beim ♀ beilförmig und kahl.

Länge, 6 Millimeter; 14 ♂, 2 ♀.

LUZON, Laguna, Los Baños und Berg Maquiling.

Evania tenuicornis sp. nov.

♂ : Schwarz; Mandibeln, ausgenommen die 3 Zähne, Palpen, Scapus, und Ventralseite der 8 folgenden Glieder, sowie die 4 vorderen Beine lehmgelb, Gesicht und Wange dicht weiss pubesziert, das Gesicht matt, nicht gestreift, vor den Antennen mit einer queren, winkeligen Erhebung, Wange gestreift, ein Viertel so lang wie das Auge, durch eine Leiste vom Gesicht getrennt. Stirn eingedrückt, runzlig, mit 3 Längsleisten von den Ocellen bis zu den Antennen. Antennen wenig vor der Augenmitte entspringend, sehr dünn, distal noch dünner, Scapus dreimal so lang

wie das 2. Glied, dieses kaum länglich, 3. doppelt so lang wie der Scapus, dem 4. gleich, vorletztes nicht halb so dick wie das 3., sechs- bis achtmal so lang wie dick.

Thorax länger als hoch. Schultern rechtwinklig. Mesonotum glänzend, mit dicken, zerstreuten Punkten, mittlerer Abschnitt hinten kaum breiter als die lateralen, Parapsidenfurchen durchlaufend. Scutellum grob zerstreut punktiert, seitlich etwas längsrunzlig. Mediansegment vorn grob und dicht punktiert, hinten wie Metapleure und Mesopleure netzrunzlig, ohne Eindruck über den Coxae, oberes ein Drittel der Mesopleure glatt, glänzend. Zinken des Metasternalfortsatzes stark divergierend.

Flügel fast glashell, Geäder wie bei *E. nigrithorax*, ausgenommen dass der distale Teil der Radialis stark schräg und geschwungen ist; Hinterflügel mit 7 Frenalhäkchen.

Mittlere Coxa um ihre Länge von der hinteren entfernt, hintere Coxa dorsal grob quengerunzelt, hintere Tibia kaum sichtbar bedornt, längerer Sporn halb so lang wie der Metatarsus, dieser so lang wie die 4 folgenden Glieder zusammen, Zahn der Kralle länger und breiter als die Krallenspitze. Petiolus kaum so lang wie sein Abstand vom Mesonotum, glatt, glänzend, seitlich wenig deutlich quengerunzelt, Abdomen lang elliptisch, pubesziert.

Länge, 7 Millimeter; 2 ♂.

MINDANAO, Butuan.

Evania annularis sp. nov.

♂ ♀: Schwarz; Mandibel rotbraun, mit 4 schwarzen Zähnen, Antenne schwarzbraun, beim ♂ die Ventralseite der 4 oder 5 proximalen Glieder, beim ♀ das 2. und 3. Glied sowie oftmals die Ventralseite des Scapus, alle Trochanteren, ausgenommen das Distalende der hinteren (♀) oder aller Trochanteren (♂), vordere Tibia und, beim ♀, das proximale ein Drittel der 4 hinteren Tibien sowie die 2 oder proximalen Glieder der Tarsen weisslich oder gelblich, vordere Coxa meist lehmgelb. Kopf vorn wenig dicht weiss pubesziert. Schläfe längsgestreift. Wange grob fächerartig gestreift, halb so lang wie das Auge. Gesicht gewölbt, dicht längsgestreift, mit einem medialen Wärzchen, vor den Antennen mit einer queren, bogigen Erhebung. Stirn etwas eingedrückt, glänzend, mit durchlaufender Mittellängsleiste, fast glatt, nur mit einigen zerstreuten Punkten oder undeutlichen Runzeln, seitlich stark gestreift. Scheitel grob und dicht punktiert, Ocellen einen Bogen bildend, die lateralen weiter voneinander als vom Auge. Antennen wenig vor der Augenmitte entspringend, 3. Glied so lang wie das 1. und 2.

zusammen, 4. kürzer als das 3., die folgenden allmählich dünner und kürzer, vorletztes noch etwa viermal so lang wie dick; Scapus des ♀ so lang wie das 2. und 3. Glied zusammen, 3. Glied fünfmal so lang wie das 2., 4. viel kürzer als das 3., fast dreimal so lang wie dick, die folgenden verdickt, 5. etwas kürzer als das 4., kaum länger als das 6., 7. bis 12. kaum länglich.

Thorax länger als hoch. Schultern fast rechtwinklig. Mesonotum grob und dicht punktiert, fast runzlig-punktiert, Parapsidenfurchen durchlaufend. Scutellum grob längsgerunzelt, beim ♂ runzlig-punktiert, Mediansegment vorn fingerhutartig punktiert, hinten netzrunzlig, eingedrückt, weiss pubesziert wie der untere Teil der Pleuren, Metapleure ohne Rinne, netzrunzlig wie die 2 unteren Drittel der Mesopleure und der Grund der Propleure. Zinken des Metasternalfortsatzes gelb und divergierend.

Flügel fast glashell, Pterostigma lanzettlich, mit weissem Proximalende, distaler Winkel der Radialzelle sehr spitz, distaler Teil der Radialis geschwungen, blasser und dünner, Basalis in das Distalende der Subcostalis mündend, mit dieser nicht parallel, Nervulus mit der Basalis zusammenstossend, Cubitalzelle halb so lang wie die vordere Discoidalzelle, Cubitalis und Discoidalis durchlaufend; Hinterflügel mit 8 oder 9 Frenalhäkchen.

Mittlere Coxa um ihre Länge von der hinteren entfernt, hintere Coxa dorsal grob gerunzelt, ventral grob punktiert, Tibia und Metatarsus des Hinterbeines mit schwarzen, sehr kleinen Dörnchen (♂ ♀), längerer Sporn halb so lang wie der Metatarsus (♂) oder fast halb so lang (♀), Metatarsus so lang wie die 3 folgenden Glieder zusammen, Zahn der Krallen gleich der Krallenspitze, beim ♂ ist der hintere Tarsus dicht feinhaarig. Petiolus beim ♂ so lang wie sein Abstand vom Mesonotum, seitlich fein quengerunzelt, beim ♀ kaum kürzer, grob quengerunzelt, Abdomen beim ♂ lang elliptisch, pubesziert, beim ♀ beilförmig.

Länge, 6.5 Millimeter; 20 ♀, 3 ♂.

LUZON, Laguna, Los Baños und Berg Maquiling.

Evania philippinensis sp. nov.

♂ ♀: Schwarz; Antenne braun bis schwarzbraun, die 4 proximalen Glieder wenigstens ventral und, beim ♀, das 5. grösstenteils lehmgelb, wie die Palpen, Mandibel gelblich, mit schwarzen Zähnen, die 4 vorderen Beine sowie die Trochantere und das Proximalende der Tibia des Hinterbeines lehmgelb, Femur und Tibia des Mittelbeines gebräunt, hintere Coxa des

♂ schwarzbraun. Scheitel fein punktiert, Ocellen fast eine Querlinie bildend, die lateralen weiter voneinander als vom Auge abstehend, den Hinterrand des Kopfes fast berührend. Stirn schwach eingedrückt, wenig glänzend, fein lederartig, mit einer medialen Längsleiste von der vorderen Ocelle bis zwischen die Antennen, seitlich längsgerunzelt, beim ♂ ziemlich dicht weiss pubesziert. Gesicht gewölbt, dicht längsgestreift, mit einer queren Erhebung vor den Antennen, von der Wange durch eine Furche getrennt. Wange fächerartig gestreift, wenig mehr als ein Drittel so lang wie das Auge. Schläfe glatt, glänzend, mit einigen zerstreuten Punkten. Antennen dem Vorderende der Augen näher als der Mitte, Scapus beim ♂ so lang wie das 3. Glied, zwei und einhalbmal so lang wie dick, 4. etwas länger als das 3., dem 5. gleich, die folgenden allmählich dünner, 12. noch mehr als doppelt so lang wie dick; Scapus des ♀ schwach bogig, länger als die 3 folgenden Glieder zusammen, 3. Glied mehr als zweimal so lang wie das 2., 4. kürzer als das 3., fast doppelt so lang wie das 2., 5. kaum länglich, 6. bis 13. ziemlich stark verdickt und kaum länglich, ausgenommen das Endglied.

Thorax kaum länger als hoch, dorsal mit groben, sich berührenden Punkten. Schultern rechtwinklig. Parapsidenfurchen durchlaufend. Mediansegment hinten und Metapleure netzartig gerunzelt, beide nur durch eine feine Leiste getrennt, Mesopleure netzrunzlig, im oberen Drittel glatt und glänzend. Zinken des Metasternalfortsatzes gelb, stark divergierend.

Flügel schwach getrübt, Pterostigma mit weissem Proximalende, distaler Winkel der Radialzelle kaum spitz, Basalis in das Distalende der Subcostalis mündend, dieser parallel und um ihre zweifache Dicke von ihr getrennt, Nervulus mit der Basalis zusammenstossend, Cubitalzelle wenig mehr als halb so lang wie die vordere Discoidalzelle, Cubitalis und Discoidalzelle durchlaufend; Hinterflügel mit 4 Frenalhäkchen.

Mittlere Coxa um ihre Länge von der hinteren entfernt, hintere Coxa dorsal quengerunzelt, ventral punktiert, hintere Tibia mit sehr kleinen, kaum sichtbaren Dörnchen (♂ ♀), längerer Sporn nicht halb so lang wie der Metatarsus, dieser wenig länger als die 3 folgenden Glieder zusammen, Zahn der Kralle breiter und länger als die Krallenspitze. Petiolus quengerunzelt, beim ♂ so lang wie sein Abstand vom Mesonotum, beim ♀ etwas kürzer, Abdomen des ♂ lang elliptisch, drei- bis viermal so lang wie hoch, beim ♀ fast kreisrund.

Länge, 4 Millimeter; 3 ♂, 11 ♀.

MINDANAO, Dapitan.

Evania variceps sp. nov.

♂ : Schwarz; Gesicht, Wange, unterer Teil der Schläfe orangegelb, Mandibel weisslichgelb, mit schwarzen Zähnen, Antennen braun, die 3 proximalen Glieder lehmgelb, die 4 vorderen Beine, ausgenommen das schwarzbraune Femur und Grund der hinteren Trochantere, lehmgelb. Kopf glatt oder sehr fein punktiert, Stirn sehr schwach gewölbt, lateral fein längsgestreift, Gesicht mit einer queren Erhebung vor den Antennen, längsgestreift, Ocellen gleichweit voneinander, vom Auge und vom Hinterrande des Kopfes entfernt. Antennen allmählich dünner, Scapus etwas länger als das 3. Glied, dieses zweimal so lang wie dick, 4. deutlich länger als das 5., dem 3. gleich, 12. mehr als doppelt so lang wie dick.

Thorax länger als hoch. Schultern rechtwinklig. Mesonotum und Scutellum grob und dicht punktiert, mittlerer Abschnitt des Mesonotum hinten kaum breiter als die lateralen, Parapsidenfurchen durchlaufend. Mediansegment vorn dicht punktiert, hinten netzrunzlig, wie die Metapleure und von dieser nicht getrennt, die 2 unteren ein Drittel der Mesopleure netzrunzlig und weiss pubesziert. Zinken des Metasternalfortsatzes stark divergierend.

Flügel fast glashell, distaler Winkel der Radialzelle spitz, Basalis in das Distalende der Subcostalis mündend, dieser parallel und von ihr um ihre zwei- bis dreifache Dicke getrennt, Nervulus mit der Basalis zusammenstossend, Cubitalis und Discoidalis durchlaufend; Hinterflügel mit 6 Frenalhäkchen.

Mittlere Coxa um ihre Länge von der hinteren entfernt, hintere Coxa dorsal quergestreift, ventral fein punktiert, hintere Tibia allmählich verdickt, sehr kurz bedornt, längerer Sporn halb so lang wie der Metatarsus, dieser so lang wie die 3 folgenden Glieder zusammen, Zahn der Kralle länger und breiter als die Krallenspitze. Petiolus seitlich schräg gestreift, so lang wie sein Abstand vom Mesonotum, Abdomen elliptisch.

Länge, 3.5 Millimeter.

LUZON, Laguna, Los Baños.

Evania arcigera sp. nov.

♂ : Schwarz; Mandibel schwarzbraun, mit 3 schwarzen Zähnen, Palpen, Tibia und Tarsus des Vorderbeines, sowie Grund aller Trochanteren lehmgelb, Tibia und Tarsus des Mittelbeines braun. Kopf von vorne gesehen höher als breit, ziemlich dreieckig und dicht weiss pubesziert. Scheitel mässig grob und dicht punktiert, Ocellen fast eine Querlinie bildend, die lateralen weiter voneinander als vom Auge entfernt. Stirn eingedrückt,

runzlig-punktiert. Gesicht gewölbt, grob längsgestreift, mit einer queren Erhebung vor den Antennen und einem medialen Wärrchen. Wange dicht fächerartig gestreift, ein Drittel so lang wie das Auge. Schläfe glatt. Antennen der Augenmitte entspringend, fadenförmig, Scapus kaum so lang wie das 3. Glied, 2. Glied fast quer, 3. dem 4. gleich, viermal so lang wie dick, 12. fast viermal so lang wie dick.

Thorax kaum länger als hoch. Schultern rechtwinklig. Mesonotum und Scutellum mit zerstreuten groben Punkten, Parapsidenfurchen durchlaufend. Mediansegment vorn runzlig-punktiert, hinten sowie Metapleure und die 2 unteren Drittel der Mesopleure grob netzrunzlig und dicht weiss pubesziert, oberes Drittel der Mesopleure glatt, kahl und glänzend. Zinken des Metasternalfortsatzes stark divergierend.

Flügel fast glashell, Pterostigma mit weissem Proximalende, distaler Winkel der Radialzelle spitz, Basalis vom Grunde bis zur Cubitalis bogig, der Subcostalis also nicht parallel, von ihr weit entfernt und in das Distalende derselben mündend, Nervulus kaum distal von der Basalis, vordere Discoidalzelle fast doppelt so lang wie die quere Cubitalzelle, distaler Abschnitt der Cubitalis und der Discoidalis durchlaufend aber dünn, eine durchscheinende 2. Transverso-cubitalis deutet eine 2. Cubitalzelle an; Hinterflügel mit 7 Frenalhäkchen.

Mittlere Coxa um wenig mehr als ihre Länge von der hinteren entfernt, hintere Coxa punktiert, dorsal hinten quengerunzelt, hintere Tibia unbedornt, ihr längerer Sporn überragt die Mitte des Metatarsus, dieser kaum kürzer als die 4 folgenden Glieder zusammen, Krallenzahn so lang wie die Krallenspitze, aber breiter. Petiolus seitlich schräg gerunzelt, so lang wie sein Abstand vom Mesonotum, Abdomen eirund, schwach pubesziert.

Länge, 4.5 Millimeter.

LUZON, Laguna, Berg Maquiling.

Genus *PROSEVANIA* Kieffer

Diese Gattung enthält nur kleine Arten; sie unterscheidet sich von voriger durch die Basalis, die der Subcostalis anliegt oder höchstens um ihre Dicke von ihr entfernt ist. Die folgenden Arten sind die ersten Vertreter dieser Gattung, die für die Philippinen erwähnt werden. Bei allen mündet die Basalis in das Distalende der Subcostalis. Sie unterscheiden sich voneinander nach folgender Tabelle:

α^1 . Gesicht von den Antennen bis zum Munde dicht längsgestreift.

b^1 . Hinterbein lang behaart, Vorderflügel bräunlich, mit einer weisslichen, durchlaufenden Querbinde.

- c¹. Thorax rot, Scutellum glatt, wenig dicht punktiert, hintere Tibia allmählich verdickt *P. fasciatipennis* sp. nov.
- c². Thorax schwarz, Scutellum grob längsrunzlig punktiert, hintere Tibia in den 3 distalen ein Viertel walzenrund.
P. variipennis sp. nov.
- b². Hinterbein ohne aufrechte Haare, höchstens fein anliegend pubesziert, Vorderflügel ohne Querbinde.
- d¹. Petiolus so lang wie das Abdomen, in der vorderen Hälfte gelb.
P. variistilus sp. nov.
- d². Petiolus einfarbig schwarz, deutlich kürzer als das lange Abdomen.
P. dolichogaster sp. nov.
- a². Gesicht ungestreift, seltener vorn oder seitlich gestreift.
- e¹. Gesicht vorn gestreift, sonst glatt, Hinterbein nur anliegend pubesziert.
f¹. Kopf, Thorax und Petiolus schwarz..... *P. inchoata* sp. nov.
f². Kopf und Thorax rotbraun, Petiolus weisslich.
P. leucostylus sp. nov.
- e². Gesicht seitlich gestreift, sonst glatt, Kopf und Thorax rotbraun, Hinterbein lang behaart..... *P. lateralis* sp. nov.
- e³. Gesicht glatt und glänzend, von den Antennen bis zum Munde, Hinterbein nur anliegend pubesziert.
- g¹. Kopf und Thorax rotbraun, letzterer oftmals zum Teil schwarzbraun.
h¹. Thorax deutlich länger als hoch, Petiolus blassgelb.
P. levifrons sp. nov. ♂.
- h². Thorax deutlich höher als lang, Petiolus rotbraun.
P. brevithorax sp. nov.
- g². Kopf und Thorax schwarz, höchstens Prothorax lehmgelb.
i¹. Thorax ganz schwarz, höher als lang..... *P. humilis* sp. nov.
i². Prothorax lehmgelb, Thorax länger als hoch.
P. collaris sp. nov.

Prosevania fasciatipennis sp. nov.

♀ : Rot, ohne dichte Pubeszenz; Kopf, Antennen, ausgenommen die 4 proximalen Glieder, Zähne der Mandibeln, Beine grösstenteils und Abdomen, ausgenommen der vordere Teil des Petiolus, schwarz; Scapus rot, die 3 folgenden Glieder weisslich, Vorderbein, ausgenommen das Femur, sowie Coxa und Trochantere der 4 hinteren Beine gelbrot, hintere Trochantere grösstenteils dunkel, hintere Tibia mit gelblichem Proximalende, Petiolus im vorderen Drittel gelblich. Stirn etwas eingedrückt, glatt, glänzend, seitlich mit einigen Längstreifen. Gesicht gewölbt, dicht längsgestreift, von einer Mittellängsleiste durchzogen, mit einer queren Erhebung vor den Antennen, durch eine Furche von der Wange getrennt. Wange fächerartig gestreift, nicht halb so lang wie das Auge. Schläfe glatt und glänzend. Ocellen fast ein gleichseitiges Dreieck bildend, die hinteren kaum weiter voneinander als vom Auge entfernt. Mandibel 3 zählig.

Antennen fast dem Vorderende der Augen gegenüber entspringend. Scapus so lang wie die 3 folgenden Glieder zusammen, 2. Glied kaum länglich, 3. wenigstens doppelt so lang wie das 2., 4. kürzer als das 3., fast doppelt so lang wie dick, die folgenden dicker, um ein Drittel länger als dick, Endglied länger.

Thorax so hoch wie lang, dorsal dicht und grob punktiert. Schultern fast rechtwinklig. Parapsidenfurchen durchlaufend. Mittlerer Abschnitt des Mesonotum hinten zweimal so breit wie die seitlichen. Scutellum weniger dicht punktiert, zwischen den Punkten glatt und glänzend. Mediansegment hinten und Metapleure netzrunzlig, ohne Trennung voneinander, Mesopleure netzartig, im oberen Drittel glatt. Zinken des Metasternalfortsatzes stark divergierend.

Vorderflügel schwach gebräunt, hinter der Radialzelle sowie in der hinteren Discoidalzelle dunkelbraun, vom Pterostigma bis zum Hinterrande mit einer weisslichen Querbinde, distaler Winkel der Radialzelle spitz, Pterostigma hell- bis dunkelbraun, Basalis der Subcostalis fast anliegend, Nervulus kaum proximal von der Basalis, vordere Discoidalzelle dreimal so lang wie die Cubitalzelle, Cubitalis und Discoidalis durchlaufend.

Mittlere Coxa um ihre Länge von der hinteren entfernt, hintere Coxa quergestreift, Femur und Tibia des Hinterbeines lang behaart, Haare kürzer als die Dicke des Beines, hintere Tibia allmählich verdickt, längerer Sporn halb so lang wie der Metatarsus, dieser so lang wie die 4 folgenden Glieder zusammen, Zahn der Kralle viel länger und breiter als die Krallenspitze. Petiolus etwas kürzer als sein Abstand vom Mesonotum, dorsal glatt, lateral schräg gestreift, Abdomen beilförmig.

Länge, 4.5 Millimeter; 2 ♀.

LUZON, Laguna, Los Baños.

Prosevania variipennis sp. nov.

♀ : Schwarz, ohne dichte Pubeszenz; Mandibel blassgelb, mit schwarzen Zähnen, Antennen braun, die 5 proximalen Glieder schmutziggelb, die 4 vorderen Beine braun, Hinterbein schwarzbraun, Trochantere und proximales Viertel der Tibia an allen Beinen schmutziggelb, Petiolus in der vorderen Hälfte bräunlichgelb. Stirn lederartig, etwas eingedrückt, mit 3 Längsleisten von den Ocellen bis zu den Antennen. Gesicht gewölbt, glänzend und dicht längsgestreift, mit einer queren Erhebung vor den Antennen, von einer Mittellängsleiste durchzogen, durch eine Leiste von der Wange getrennt. Wange fächerartig gestreift, höchstens halb so lang wie das Auge. Schläfe glatt und glän-

zend. Scheitel runzlig oder grob punktiert, Ocelle wie bei voriger Art. Antennen wenig hinter dem Vorderende der Augen entspringend, Scapus so lang wie die 3 folgenden Glieder zusammen, 3. Glied um die Hälfte länger als das 4., dieses doppelt so lang wie dick, 5. kaum länger als dick, die folgenden dicker, 6. bis 12. kaum länglich.

Thorax wenig länger als hoch, dorsal wie auch der Scheitel, mit aufrechten, schwarzen Haaren. Schultern etwas winklig vorstehend. Mesonotum grob fingerhutartig punktiert, mittlerer Abschnitt hinten doppelt so breit wie die seitlichen, Parapsidenfurchen durchlaufend. Scutellum grob längsrunzlig-punktiert. Mediansegment vorn grob fingerhutartig punktiert, hinten sowie Metapleure und Mesopleure netzrunzlig, ohne Trennung von der Metapleure. Zinken des Metasternalfortsatzes stark divergierend.

Vorderflügel bräunlich, dunkler am Distalende, sowie hinter der Radialzelle und in der hinteren Discoidalzelle, mit einer weisslichen, durchlaufenden, vom Grunde des Pterostigma ausgehenden Querbinde, Basalis in das Distalende der Subcostalis mündend, von dieser um ihre Dicke getrennt, distaler Winkel der Radialzelle spitz, Cubitalzelle nicht ein Drittel so lang wie die vordere Discoidalzelle, Nervulus mit der Basalis zusammenstossend, Cubitalis und Discoidalis durchlaufend; Hinterflügel mit 6 Frenalhäkchen.

Mittlere Coxa um ihre Länge von der quengerunzelten hinteren Coxa entfernt, am Hinterbein sind Trochantere und Femur lang behaart, Haare kaum kürzer als die Dicke des Femur, Tibia nur schwach behaart, wie auch das Mittelbein, so lang wie das Femur, walzenrund, ausgenommen im proximalen Viertel, längerer Sporn fast halb so lang wie der Metatarsus, dieser so lang wie die 4 folgenden Glieder zusammen, Krallenzahn länger und breiter als die Krallenspitze. Petiolus so lang wie sein Abstand vom Mesonotum, dorsal mit aufrechten schwarzen Haaren, sowie einer Mittellängsleiste und groben Punkten, ausgenommen hinten, lateral mit Längsleisten und schrägen Runzeln, Abdomen beilförmig.

Länge, 4.5 Millimeter; 2 ♀.

LUZON, Laguna, Los Baños and Berg Maquilang.

Prosevania variistilus sp. nov.

♂ : Schwarz; Mandibel blassgelb, mit 3 schwarzen Zähnen, Antenne schwarzbraun, die 2 proximalen Glieder lehmgelb, das 3. gelblichbraun, die 4 vorderen Beine lehmgelb, ausgenommen das schwarzbraune Femur, sowie am Mittelbein die braune Ti-

bia, Grund der hinteren Trochantere lehmgelb, Grund der hinteren Tibia mit rotbraunem Ring, vordere Hälfte des Petiolus blassgelb. Kopf glatt oder kaum merklich fein punktiert. Stirn schwach gewölbt, seitlich fein längsgestreift, mit Spur einer Mittellängsleiste. Gesicht dicht längsgestreift, mit einer queren Erhebung vor den Antennen. Wange fächerartig gestreift. Ocellen fast ein gleichseitiges Dreieck bildend. Antennen wenig vor der Augenmitte entspringend, fadenförmig, Scapus so lang wie das 3. Glied, dieses zwei und einhalbmals so lang wie dick, 4. wenig länger als das 5., um ein Drittel länger als das 3., 5. kaum länger als das 3., 6. bis 13. allmählich dünner, 12. fast dreimal so lang wie dick.

Thorax länger als hoch. Schultern fast abgerundet. Mesonotum glatt, glänzend, mit zerstreuten, groben Punkten, mittlerer Abschnitt hinten so breit wie die seitlichen, Parapsidenfurchen durchlaufend. Scutellum dichter punktiert. Mediansegment vorn fingerhutartig punktiert, hinten ohne Vertiefung und ohne dichte Pubeszenz, netzartig gerunzelt, wie die Metapleure und der untere Teil der Mesopleure. Zinken gelb wie der Metasternalfortsatz, klein und divergierend.

Flügel schwach getrübt, distaler Winkel der Radialzelle spitz, Basalis kaum um ihre Dicke von der Subcostalis entfernt, vordere Discoidalzelle fast dreimal so lang wie die Cubitalzelle, Nervulus mit der Basalis zusammenstossend, Cubitalis und Discoidalis durchlaufend; Hinterflügel mit 5 Frenalhäkchen.

Mittlere um wenig mehr als ihre Länge von der hinteren entfernt, diese fein quergestreift, Tibia allmählich verdickt, kaum sichtbar bedornt, längerer Sporn etwas kürzer als der halbe Metatarsus, dieser so lang wie die 3 folgenden Glieder zusammen, Krallenzahn länger und breiter als die Krallenspitze. Petiolus so lang wie sein Abstand vom Mesonotum, seitlich schräg gestreift, das übrige Abdomen kurz elliptisch, nicht länger als der Petiolus.

Länge, 3 Millimeter; 2 ♂.

LUZON, Laguna, Los Baños.

Prosevania dolichogaster sp. nov.

♂: Von voriger Art nur durch folgende Merkmale zu unterscheiden: Scapus etwas länger als das 3. Glied, 4. um die Hälfte länger als das 3., die 4 proximalen lehmgelb. Zinken schwarz, wie der Metasternalfortsatz, lang und stark divergierend. Flügel fast glashell, Distalende kaum dunkler. Hintere Tibia am Grunde mit lehmgelbem Ring, hinterer Metatarsus ventral kurz bedornt, diese Dörnchen länger als die der Tibia.

Petiolus einfarbig schwarz, deutlich kürzer als das lang elliptische Abdomen, dieses um die Hälfte länger als der Petiolus.

Länge, 3.5 Millimeter; 3 ♂.

LUZON, Laguna, Los Baños.

Prosevania dolichogaster var. *arcuata* var. nov.

♂ : Schwarz, glänzend; Mandibel gelb mit 3 schwarzen Zähnen, Antenne braun, 1. und 2. Glied sowie die Ventralseite der 2 oder 3 folgenden lehmgelb, Beine schwarzbraun, Vorderbein und, am Mittelbein, Tibia und Tarsus lehmgelb, hintere Tibia ohne Ring. Ocellen einen Bogen bildend, die lateralen so weit voneinander wie vom Auge: Stirn mit Spuren von 3 Längsleisten von den Ocellen bis zu den Antennen. Wange fast halb so lang wie das Auge.

Flügelspitze, ein Fleck hinter der Radialzelle und die hintere Discoidalzelle dunkler. Hintere Coxa dorsal punktiert, ventral quergestreift, längerer Sporn die Mitte des Metatarsus überragend. Petiolus dorsal punktiert, lateral schräg gestreift. Alles übrige wie bei der Type.

Länge, 3.5 Millimeter; 2 ♂.

PALAWAN, Puerto Princesa.

Prosevania inchoata sp. nov.

♂ : Von der typischen *P. dolichogaster* durch folgende Merkmale zu unterscheiden: Gesicht glänzend und fast glatt, kaum merklich lederartig oder punktiert, nur am Vorderrande längsgestreift. Flügel deutlich gebräunt. Petiolus etwas länger als sein Abstand vom Mesonotum, so lang wie das Abdomen, dieses lang elliptisch.

Länge, 4 Millimeter; 4 ♂.

MINDANAO, Butuan.

Prosevania lateralis sp. nov.

♀ : Rotbraun; Palpen, die 5 proximalen Glieder der Antenne, Ventralseite des Kopfes, Beine und Petiolus gelb, Kopf ohne schwarze Zeichnung, 6.-13. Antennenglied und die 4 hinteren Tarsen schwarz, Femur und Tibia des Hinterbeines dunkelbraun, Grund der Tibia mit einem weissen Ring. Gesicht seitlich längsgestreift. Antennen dem vorderen Drittel der Augen gegenüber entspringend, 1. Glied so lang wie die 3 folgenden zusammen, 3. länger als das 4., fast doppelt so lang wie das 2., 5. kürzer als das 4., die folgenden verdickt, 6. bis 12. kaum länger als dick. Scutellum längsrunzlig und punktiert.

Flügel etwas gebräunt, mit 2 wenig deutlichen weisslichen

Querbinden, deren 1. vom Grunde des Pterostigma ausgeht, die 2. vor der Flügelspitze. Hinteres Femur lang behaart, hintere Tibia kürzer behaart, unbedornt, walzenrund, ausgenommen der weisse proximale Teil, längerer Sporn fast halb so lang wie der Metatarsus, dieser so lang wie die 4 folgenden Glieder zusammen. Petiolus seitlich quergestreift, etwas kürzer als sein Abstand vom Mesonotum, Abdomen beilförmig, glatt und kahl. Alles übrige wie *P. levifrons*.

Länge, 3 Millimeter.

LUZON, Laguna, Los Baños.

Prosevania levifrons sp. nov.

♂: Rotbraun, ohne dichte Pubeszenz; Antennen braun, die 3 oder 4 proximalen Glieder blassgelb, wie die Palpen und die Beine, Kopf hinter den Ocellen schwarz, Hinterbein schwarzbraun, ausgenommen das Distalende der Coxa sowie das Proximalende der Trochantere und der Tibia, Abdomen schwarz, Petiolus gelb, ausgenommen das schwarzbraune Hinterende. Kopf glatt, glänzend, ventral blasser als dorsal, Stirn flach, Gesicht gewölbt, mit einer queren Erhebung vor den Antennen, bis zum Munde glatt und glänzend, von der Wange durch eine Furche getrennt. Wange fast halb so lang wie das Auge, dicht fächerartig gestreift. Ocellen fast eine Querlinie bildend, die lateralen weiter voneinander als vom Auge entfernt, den Hinterrande des Kopfes fast berührend. Mandibel blassgelb, mit schwarzen Zähnen. Antennen vor der Augenmitte entspringend, dünn und schlank, Scapus doppelt so lang wie dick, 3. Glied kaum kürzer als der Scapus, 4. länger, dem 5. gleich, 12. noch fast dreimal so lang wie dick.

Thorax deutlich ein Drittel länger als hoch. Schultern rechtwinklig. Mesonotum und Scutellum grob und ziemlich dicht punktiert, Parapsidenfurchen durchlaufend. Mediansegment vorn fingerhutartig punktiert, hinten netzartig wie die Metapleure und ohne Trennung, Mesopleure glatt und glänzend. Zinken des Metasternalfortsatzes divergierend.

Flügel schwach getrübt, distaler Winkel der Radialzelle kaum spitz, Basalis in das Distalende der Subcostalis mündend und derselben fast anliegend, Nervulus mit der Basalis zusammenstossend, vordere Discoidalzelle fast dreimal so lang wie die Cubitalzelle, Cubitalis und Discoidalis durchlaufend.

Mittlere Coxa um ihre Länge von der hinteren entfernt, hintere Coxa dorsal quergestreift, längerer Sporn ein Drittel so lang wie der Metatarsus, alle Sporen blassgelb, hinterer Metatarsus so lang wie die 4 folgenden Glieder zusammen, Tarsus

sehr dünn, ventral mit sehr kleinen Dörnchen. Petiolus glatt, glänzend, wenigstens so lang wie sein Abstand vom Mesonotum, Abdomen kahl, elliptisch.

Länge, 3 Millimeter.

LUZON, Laguna, Berg Maquiling.

Prosevania brevithorax sp. nov.

♂: Rotbraun; Palpen und Mandibeln, ausgenommen die schwarzen Zähne, blassgelb, Antennen schwarzbraun, die 4 proximalen Glieder gelb, Kopf mit schwarzem Fleck hinter den Ocellen, Scutellum und hinterer Teil des Mediansegmentes schwarzbraun, Beine lehmgelb, Hinterbein schwarzbraun, das Femur dunkelrot, Proximalende der Trochantere und der Tibia gelblich, Abdomen schwarz, Petiolus rotbraun. Kopf wie bei voriger Art. Antennen fadenförmig, wenig vor der Augenmitte entspringend, Scapus fast dreimal so lang wie dick, länger als das 3. Glied, 4. dem Scapus an Länge gleich, 5. dem 4. gleich, 12. noch fast dreimal so lang wie dick.

Thorax deutlich höher als lang, mit rechtwinkligen Schultern. Mesonotum und Scutellum glatt, glänzend, nur sehr spärlich punktiert. Vorderflügel glashell, nur am Distalende getrübt, vordere Discoidalzelle mehr als dreimal so lang wie die Cubitalzelle.

Längerer Sporn der Hintertibia wenigstens halb so lang wie der Metatarsus. Petiolus sehr fein gestrichelt. Alles übrige wie bei *P. levifrons*.

Länge, 2.8 Millimeter.

MINDANAO, Butuan.

Prosevania leucostylus sp. nov.

♂: Rotbraun; Thorax stellenweise dunkler, Antennen schwarzbraun, die 2 proximalen Glieder und die Ventralseite der 2 folgenden gelblichweiss, die 4 vorderen Beine bräunlichgelb, mit weisslichen Tarsen, Hinterbein schwarzbraun, Distalende der Coxa, Proximalende der Trochantere, des Femur und der Tibia hellbraun, Abdomen schwarzbraun, Petiolus gelblichweiss, ausgenommen das Hinterende. Kopf glatt, glänzend. Stirn fast flach. Gesicht nur vorn schwach längsgestreift, gewölbt, ohne quere Erhebung vor den Antennen, durch eine Furche von der Wange getrennt. Wange dicht fächerartig gestreift, kaum mehr als ein Drittel so lang wie das Auge. Ocellen einen Bogen bildend, die lateralen etwas weiter voneinander als vom Auge entfernt. Antennen wenig vor der Augenmitte entspringend, fadenförmig, Scapus so lang wie das 2. und 3. Glied zusammen,

2. fast quer, 3. zwei und einhalbmals so lang wie dick, deutlich kürzer als das 4., 12. noch zwei und einhalbmals so lang wie dick.

Thorax deutlich länger als hoch, mit fast rechtwinkligen Schultern. Mesonotum und Scutellum grob und wenig dicht punktiert, Parapsidenfurchen durchlaufend. Mediansegment vorn fingerhutartig punktiert, hinten netzrunzlig wie die Metapleure, Mesopleure glatt und glänzend, seitlich und unten grob punktiert. Zinken des Metasternalfortsatzes divergierend.

Vorderflügel glashell, Distalende und Hinterrand getrübt, distaler Winkel der Radialzelle spitz, Basalis in das Distalende der Subcostalis mündend, von ihr um ihre Dicke getrennt, mit dem Nervulus zusammenstossend, vordere Discoidalzelle dreimal so lang wie die Cubitalzelle, Cubitalis und Discoidalis durchlaufend; Hinterflügel mit 5 Frenalhäkchen.

Mittlere Coxa um ihre Länge von der hinteren entfernt, am Hinterbein ist die Coxa dorsal fein quergestreift, Tibia kaum sichtbar bedornt, Sporen blass, der längere fast halb so lang wie der Metatarsus, dieser so lang wie die 3 folgenden Glieder zusammen, Krallenzahn länger und breiter als die Krallenspitze. Petiolus glatt, hinten lateral schräg gestreift, wenig kürzer als das Abdomen, fast so lang wie sein Abstand vom Mesonotum, Abdomen elliptisch, feinhaarig.

Länge, 2.5 Millimeter.

LUZON, Laguna, Los Baños.

Prosevania humilis sp. nov.

♂: Schwarz, glänzend, ohne dichte Pubeszenz; Mandibeln, ausgenommen die Zähne, Palpen, die 4 proximalen Glieder der Antennen, Vorderbein, Trochantere und Tarsus der 4 hinteren Beine lehmgelb, vordere Tibia bräunlich, Petiolus dunkel rotbraun. Kopf glatt. Stirn gewölbt. Gesicht ungestreift, gewölbt, durch eine Furche von der Wange getrennt. Wange sehr fein gestreift, ein Drittel so lang wie das Auge. Ocellen einen Bogen bildend, die lateralen so weit voneinander wie vom Auge. Antennen fadenförmig, dem vorderen Drittel der Augen gegenüber entspringend, Scapus so lang wie das 3. Glied, dieses kaum doppelt so lang wie dick, 4. so lang wie das 2. und 3. zusammen, 12. noch mehr als doppelt so lang wie dick.

Thorax höher als lang, mit fast rechtwinkligen Schultern. Mesonotum und Scutellum mit wenigen, mässig groben Punkten, medialer Teil des Mesonotum stark gewölbt, Parapsidenfurchen durchlaufend. Mediansegment vorn runzlig, hinten nicht eingedrückt, nicht getrennt, netzrunzlig wie die Metapleure und der

untere Teil der Mesopleure. Zinken des Metasternalfortsatzes divergierend.

Flügel fast glashell. Pterostigma lanzettlich, mit weissem Proximalende, distaler Winkel der Radialzelle kaum spitz, Basalis in das Distalende der Subcostalis mündend, von dieser um ihre Dicke getrennt, mit dem Nervulus zusammenstossend, vordere Discoidalzelle dreimal so lang wie die Cubitalzelle, Cubitalis und Discoidalis durchlaufend; Hinterflügel mit 4 Frenalhäkchen.

Mittlere Coxa um ihre Länge von der hinteren entfernt, am Hinterbein ist die Coxa dorsal quengerunzelt, längerer Sporn halb so lang wie der Metatarsus, Tibia und Tarsus mit kaum sichtbaren Dörnchen, Metatarsus so lang wie die 4 folgenden Glieder zusammen, Krallenzahn breiter und viel länger als die Krallenspitze. Petiolus glatt, so lang wie sein Abstand vom Mesonotum, Abdomen fast kreisrund.

Länge, 2.2 Millimeter.

MINDANAO, Butuan.

Prosevania collaris sp. nov.

♂: Schwarz; Antennen braun, die 5 proximalen Glieder lehmgelb, Prothorax rotgelb, vordere Tibia, Grund der hinteren Tibia, Distalende der 4 vorderen Coxae und alle Tarsen blassgelb, die 4 vorderen Femora und die mittlere Tibia braun, Petiolus rotbraun, ausgenommen das Hinterende. Antennen wenig vor der Augenmitte entspringend.

Thorax länger als hoch, medialer Abschnitt des Mesonotum nicht stärker gewölbt. Distalende des Vorderflügels gebräunt, distaler Winkel der Radialzelle sehr spitz, indem die Radialis sehr schräg mündet, Hinterflügel mit 5 Frenalhäkchen.

Länge, 2.5 Millimeter.

MINDANAO, Butuan.

Genus *PSEUDOFENUS* Kieffer

Die bisher bekannten Vertreter dieser Gattung stammen aus Südamerika und Australien.

Pseudofenus manilensis sp. nov.

♀: Schwarz; Antenne schwarzbraun, distal allmählich heller, die 4 oder 5 Endglieder, sowie die Mandibeln und das Vorderbein rostrot, Mesopleure und der angrenzende Teil der Propleure und der Metapleure rotbraun, ein grosser ventraler Fleck am Grunde der hinteren Tibia blassgelb, Klappen fast in der distalen Hälfte weiss. Kopf glatt, glänzend. Wange fast fehlend.

Gesicht seitlich weiss pubesziert. Hinterkopf ein Drittel so lang wie das Auge, quer, allmählich verengt, abgestutzt, laterale Ocellen fast doppelt so weit von den Antennen als vom Hinterrande des Kopfes. Mandibel mit einem grossen, schräg nach hinten gerichteten Zahn, dieser länger als die Spitze. Antennen der Augenmitte gegenüber entspringend, Scapus so lang wie das 3. Glied, 2. länglich, 4. fast doppelt so lang wie das 3., vorletztes fast doppelt so lang wie dick. Hals glatt, glänzend, so lang wie der Abstand der Tegula von der Schulter.

Thorax dorsal netzrunzlig, doppelt so lang wie hoch, Zähne des Prothorax mässig gross. Vorderer Abschnitt des Mesonotum wenigstens doppelt so lang wie der hintere und von diesem durch eine bogige Linie getrennt, vorn mit 2 Längslinien. Mediansegment hinten allmählich abschüssig. Metapleure und Mesopleure netzrunzlig.

Flügel kaum getrübt, Cubitalis aus der Mitte des Nervulus entspringend, die einzige Discoidalzelle gross, Hinterflügel mit 3 Frenalhäkchen, ohne deutliche Ader. Hintere Coxa grob quergestreift, dreimal so lang wie dick, hinterer Metatarsus fast so lang wie die 4 folgenden Glieder zusammen. Bohrer, 14.5 Millimeter lang.

Länge, 15 Millimeter; 3 ♀.

LUZON, Laguna, Los Baños.

Genus *TRICHOFÆNUS* Kieffer

Auch von dieser Gattung war keine Art für die Philippinen bekannt.

Trichofænus rubriceps sp. nov.

♀ : Schwarz; Kopf rot, mit einem grossen schwarzen Fleck auf dem Scheitel und dem Hinterkopf, Tibia der 4 vorderen Beine blassgelb, in der Mitte etwas gebräunt, die proximalen zwei Drittel der 4 vorderen Metatarsen, ein grosser proximaler Ring an der hinteren Tibia und das distale Viertel der Klappen gelblichweiss. Kopf breit, glatt, glänzend, auf den Seiten des Gesichts weiss pubesziert. Hinterkopf halb so lang wie die feinhaarigen Augen, ohne Kragen noch Grübchen, Ocellen den Antennen kaum näher als dem Hinterrande des Kopfes. Wange sehr klein, nicht länger als das 2. Antennenglied. Antenne der Augenmitte gegenüber entspringend, Scapus so lang wie das 3. Glied, 2. Glied etwas länglich, 3. nicht doppelt so lang wie dick, 4. fast dreimal so lang wie dick, vorletztes zweimal.

Hals kürzer als der Abstand der Tegula von der Schulter, fein quergestreift, Zähne des Prothorax sehr kurz. Thorax

dorsal grob quengerunzelt. Vorderer Abschnitt des Mesonotum dreimal so lang wie der hintere, vorn mit 2 parallelen Längslinien, Parapsidenfurchen hinten winklig zusammenstossend. Mediansegment hinten grob quergekielt. Metapleure und Mesopleure netzrunzlig, dicht weiss pubesziert, durch eine tiefe Rinne getrennt.

Flügel gebräunt, hintere Discoidalzelle zwei Drittel so lang wie die vordere, Hinterflügel mit 3 Frenalhäkchen, ohne deutliche Ader, nur mit einer durchscheinenden Linie und einem gelben Streifen. Hintere Coxa grob quergekielt, dazwischen stark glänzend, hinterer Metatarsus so lang wie die 4 folgenden Glieder zusammen. Petiolus matt. Bohrer, 15 Millimeter lang; Abdomen, 13 Millimeter lang.

Länge, 18 Millimeter.

LUZON, Laguna, Berg Maquiling.

Genus GASTERUPTION Latreille

Die 2 folgenden Arten sind die ersten dieser Gattung, die in den Philippinen beobachtet worden sind.

- α^1 . Vorderer Abschnitt des Mesonotum kaum länger als der hintere, Hinterkopf länglich..... *G. philippinense* sp. nov.
 α^2 . Vorderer Abschnitt des Mesonotum dreimal so lang wie der hintere, Hinterkopf quer..... *G. bakeri* sp. nov.

Gasteruption philippinense sp. nov.

δ φ : Schwarz; Mandibel schwarzbraun, Grund der 4 vorderen Tibien, die 4 vorderen Metatarsen beim φ ganz, beim δ nur im proximalen Drittel gelblichweiss, der übrige Tarsus braun, hintere Tibia mit einem grossen, weissen, proximalen Ring oder doch mit einem ventralen weissen Fleck. Kopf glatt, glänzend, weiss pubesziert. Hinterkopf lang, fast so lang wie das Auge, allmählich verschmälert. Wange sehr klein. Scapus kaum kürzer als das 3. Glied, 2. Glied anderthalbmal so lang wie dick, 3. anderthalbmal so lang wie das 2., kaum kürzer als das 4. Glied.

Hals lang, länger als der Abstand der Tegula von der Schulter, fein quengerunzelt, Zähne des Prothorax ziemlich gross. Thorax dorsal grob runzlig-punktiert, vorderer Abschnitt kaum länger als der hintere, die trennende Kerblinie hinten einen Bogen bildend. Mediansegment hinten allmählich abschüssig, netzartig gerunzelt. Pleuren runzlig.

Flügel glashell, hintere Discoidalzelle fast so lang wie die vordere, Hinterflügel ohne deutliche Ader. Hintere Coxa quergestrichelt, Metatarsus fast so lang wie die 4 folgenden Glieder zusammen. Abdomen stark bogig gekrümmt, pubesziert, sehr

fein lederartig oder fast glatt, 7 Millimeter lang, Bohrer 8 Millimeter lang, Klappen einfarbig schwarz.

Länge, 11 bis 12 Millimeter.

LUZON, Laguna, Los Baños und Berg Maquiling.

Gasteruption bakeri sp. nov.

♂ : Schwarz; Mandibel und Vorderbein gelbrot, das Femur dunkler, der Tarsus gelblichweiss, Mittelbein mit weissem Ring am Grunde der Tibia, Tarsus braun, Proximalende des Metatarsus weisslich, hintere Tibia mit einem grossen, weissen, proximalen Fleck auf der Ventralseite. Kopf glatt, glänzend, an den Seiten des Gesichts dicht weiss pubesziert. Hinterkopf quer, halb so lang wie das Auge, laterale Ocellen dem Hinterrande des Kopfes viel näher als den Antennen. Wange sehr klein. Antennen dunkelbraun, die 3 proximalen Glieder schwarz, 2. Glied kaum länglich, 3. um die Hälfte länger als das 2., so lang wie der Scapus, 4. doppelt so lang wie das 3., kaum kürzer als das 5., die 5 Endglieder abgebrochen.

Hals kürzer als der Abstand der Tegula von der Schulter, querverunzelt. Zähne des Prothorax sehr klein. Mesonotum querverunzelt, vorn mit 2 Längslinien, vorderer Abschnitt dreimal so lang wie der hintere, die abgrenzende Kerblinie hinten bogig, Seiten des hinteren Abschnittes und Scutellum fein lederartig. Mediansegment hinten allmählich abschüssig, netzartig gerunzelt. Pleuren gerunzelt.

Flügel gebräunt, proximales Drittel des Vorderflügels fast glashell, hintere Discoidalzelle kaum kürzer als die vordere, viereckig wie gewöhnlich, Hinterflügel ohne deutliche Ader. Hintere Coxa grob querverieft, Metatarsus so lang wie die 4 folgenden Glieder zusammen. Abdomen kaum bogig.

Länge, 13 Millimeter.

PALAWAN, Puerto Princesa.

Genus *AULACINUS* Westwood

Folgende neue Art ist der erste Vertreter der Gattung *Aulacinus* von den Philippinen.

Aulacinus philippinensis sp. nov.

♀ : Schwarz; Mandibel rotbraun, die 3 proximalen Glieder der Antennen, Tibia und Tarsus der 4 vorderen Beine lehmgelb, Abdomen mit einem roten, dorsalen Fleck, der den Hinterrand des Petiolus und den grössten Teil des 2. Tergites bildet. Kopf unbewehrt, hinten einfach, matt, lederartig, dunkel pubesziert. Wange sehr kurz, kürzer als das 2. Antennenglied. Hinterkopf

mehr als halb so lang wie das Auge, Ocellen ein Dreieck bildend, die hinteren liegen dem Hinterrande der Augen gegenüber, von diesen so weit wie voneinander entfernt. Scapus um die Hälfte länger als das 2. Glied, dieses länglich, 3. fast doppelt so lang wie das 2., 4. deutlich länger als das 3., die folgenden dicker, Endglieder abgebrochen. Hals lang, fast so lang wie sein Abstand von der Schulter.

Thorax länger als hoch, unbewehrt, matt, dunkel pubesziert und lederartig, Parapsidenfurchen durchlaufend, hinten fast zusammenstossend. Mediansegment hinten grob quergerunzelt. Mesopleure oben längsgerunzelt.

Flügel glashell, mit dunkelbraunem Distalende, Basalis in das Distalende der Subcostalis mündend, 1. Discoidalzelle länglich, um ihre ganze Länge von der 2. Cubitalzelle entfernt, 2. und 3. Cubitalzelle distal zwar geschlossen, aber die beiden Transverso-cubitalis sind in ihrer Mitte viel blasser als an ihren beiden Enden, die 2. Discoidalzelle endigt proximal von der Mitte der 3. Cubitalzelle; Hinterflügel ohne ausgebildete Ader, mit 3 Frenalhäkchen. Petiolus länger als die Hälfte des Abdomen, dieses schwach bogig, fein lederartig, Klappen einfarbig schwarz, Bohrer 6 Millimeter lang.

Länge, 6 Millimeter.

LUZON, Tayabas, Berg Banahao.

III. BEITRAG ZUR COLEOPTEREN FAUNA DER PHILIPPINEN

Von W. SCHULTZE

(Manila, P. I.)

RHIPIDOCERIDÆ

Callirhipis lagunae sp. nov.

♂ : Kopf, Halsschild und Flügeldecken dunkelbraun, aschgrau sammtartig glänzend pubesziert. Kopf sehr dicht zusammenfließend punktiert. Die sehr stark aufgetriebenen Fühlerbasen in der Mitte tief gekerbt. Fühler: erstes Glied dunkelrotbraun, sehr dicht und gleichmässig punktiert, die folgenden rotbraun, alle Glieder sehr fein pubesziert. Fühlerlänge 16 Millimeter. Halsschild: vordere Hälfte gerundet, kräftig blasig aufgetrieben. Von der Mitte des Seitenrandes bis zu den Hinterecken an Breite zunehmend. Im diskalen Teil, von der Mitte bis zum Hinterrand reichend, eine tiefe Rinne. Je seitlich von letzterer eine kräftige grubenartige Vertiefung. Schildchen nahezu kreisrund, am Vorderrand mit einem Zäpfchen, die Aussenränder schalenartig aufgebogen. Flügeldecken so breit wie der Hinterrand des Halsschildes, nahezu parallel für dreiviertel ihrer Länge, dann spitzbogig bis zur Naht, kräftig weitläufig punktiert, ein kräftiger Eindruck am Vorderrand nächst den Schulterecken. Je zwei parallele Längsschwielen auf jeder Flügeldecke, vom ersten bis zum dritten Viertel ihrer Länge reichend, wo sie sodann zusammen in eine gemeinsame kurze Schwiele auslaufen. Eine dritte undeutliche Schwiele den Abfall nach den Seitenrändern markierend. Unterseite und Beine dunkelbraun, fein und dicht punktiert und sehr fein behaart, Abdominalsegmente heller, rotbraun, desgleichen das letzte Tarsenglied.

Länge, 16 Millimeter; Schulterbreite, 4.5.

LUZON, Laguna, Paete (*A. de los Reyes*).

Type in meiner Sammlung.

Diese Art gehört in die Verwandtschaft von *C. orientalis* Cast. Im Vergleich mit *C. helleri* Schultze ist *C. lagunae* viel schlanker gebaut als diese. Sie unterscheidet sich leicht von den anderen bis jetzt bekannten philippinischen *Callirhipis*-Arten durch die, je nach der Beleuchtung, sammtartig silber- oder aschgrauen oder braunen Flecke des Halsschildes und der Flügeldecken.

CERAMBYCIDÆ

Genus *PSEUDABRYNA* novum

Ähnlich dem Genus *Abryna* Newmann. Kopf lang gestreckt, Fühlerbasis das Auge in zwei Hälften teilend. Erstes Fühler-

glied schwach gebogen, nach der Apex kräftig keulenförmig, so lang wie das vierte Glied. Zweites Glied sehr klein, drittes Glied ein Viertel länger wie das erste Glied. Fünftes und die folgenden Glieder gleich lang, etwas kürzer wie das Erste. Halsschild cylinderisch, etwas länger wie breit, in der Mitte schwach gewölbt, nächst dem Hinterrande deutlich eingeschnürt. Flügeldecken breiter wie das Halsschild, kräftig gewölbt, die Schulterecken kräftig hervortretend, die Seiten parallel für zwei Drittel ihrer Länge, dann gleichmässig gerundet bis zur Naht. Mittel- und Hinterschenkel nach den Kniegelenken zu verbreitert.

Type: *P. luzonica*.

Pseudabryna luzonica sp. nov.

Schwarz glänzend. Kopf mässig kräftig punktiert, speciell um die Fühlerbasis, nach dem Scheitel zu nahezu glatt. Eine feine Mittelrinne über Stirn und Scheitel, sowie ein weisser länglicher Tomentfleck auf der Stirn bis an den Scheitel reichend. Fühlerbasis innerhalb des Auges weiss gesäumt. Viertes Fühlerglied im mittleren Teile weiss tomentiert. Halsschild unregelmässig punktiert, ein nahezu runder Tomentfleck je seitlich am Vorderrande. Schildchen mit einigen kräftigen Punkten und einem Grübchen im hinteren Teil. Flügeldecken: je ein grösserer ovaler weisser Tomentfleck hinter dem Schildchen und nächst der Naht. Drei weitere querstreifenartig gereihte Flecken vor der Mitte. Eine weitere Anzahl querstreifenartiger Flecke hinter der Mitte. Im letzten Drittel jeder Flügeldecke je vier ebenfalls weiss tomentierte Strichlängsmakeln. Hinterrand der Flügeldecken weiss gesäumt. Unterseite, Vorderhüften sowie Seiten der Mittel- und Hinterbrust weiss tomentiert. Abdominalsegmente sehr fein lederartig gerunzelt. Hinterränder derselben seitlich ebenfalls weiss tomentiert. Vorder-, Mittel- und Hinterschienen sowie Tarsen schwarz beborstet. Zweites Tarsenglied im basalen Teile weiss tomentiert.

Länge, 12.5 Millimeter; Schulterbreite, 4.5.

LUZON, Benguet, Berg Santo Tomas (*J. C. Hoffmeister*).

Type in meiner Sammlung.

Diese Art scheint in Bezug auf Zeichnung sehr zu variieren, da ein zweites Exemplar vom selben Fundort nur Andeutungen der oben erwähnten Tomentflecke der Flügeldecken zeigt.

Abryna (?) *hoffmeisteri* sp. nov.

Kopf, Fühler, Halsschild und Beine rotbraun, Flügeldecken dunkelbraun, glänzend und mit rötlichem Schimmer. Kopf kräftig lederartig gerunzelt, fein behaart und mit einem feinen

Längskiel in der Mitte. Halsschild cylinderisch, ein Drittel breiter wie lang, kräftig lederartig gerunzelt und fein hellgrau behaart. Die Runzelung durch einen unregelmässigen Längskiel in der Mitte unterbrochen. Schildchen sehr kurz und kräftig gewölbt. Flügeldecken gleichmässig punktiert, im basalen Teil etwas kräftiger als nach den Spitzen zu. Jedem der Punkte entspringt ein ockerfarbiges Härchen. Seitenränder besonders im apikalen Drittel mit längeren Härchen besetzt. Flügeldecken mit einer kräftigen grübchenartigen Vertiefung hinter dem Schildchen; in dieser ein kleiner ockerfarbig tomentierter Doppelfleck.¹ Am Seitenrande im dritten Viertel eine grössere schräg nach vorn gerichtete länglich ockerfarbige tomentierte Makel und im spitzen Teil ein grösserer und mehrere kleinere schwach tomentierte Flecke. Ein breiter Tomentstreifen an den Seiten der Pro-, Meso- und Metathorax. Abdominalsegmente schwarz, die Seitenränder fein behaart. Letztes Abdominalsegment mit einer tiefen Längsrinne² in der Mitte, punktiert und kräftig behaart. Beine: die Kniegelenke sowie die Tarsenglieder dunkelbraun, letztere fein hellgrau behaart.

Länge, 18 Millimeter; Schulterbreiter, 5.5.

LUZON, Benguet, Berg Santo Tomas.

Type in meiner Sammlung.

Ich benenne diese interessante Art nach ihrem Entdecker, Herrn J. C. Hoffmeister.

Von vier Exemplaren von *A. eximia* Newm. in meiner Sammlung (Luzon, Laguna, Paete, *McGregor*) haben die drei grössten Exemplare diese Mittellängsrinne nicht, während es bei dem Kleinsten vorhanden ist. Es wäre darnach anzunehmen, dass diese Rinne einen Geschlechtscharakter darstellt (♂?). *Abryna hoffmeisteri* ist im Vergleich zu den obengenannten Arten schlanker gebaut; auch sind die Flügeldecken nicht so kräftig gewölbt wie bei diesen.

SCARABÆIDÆ

CETONINÆ

Coenochilus luzonicus sp. nov.

Matt schwarz. Kopf: Clypealvorderrand gerundet, in der Mitte vorgezogen und etwas aufgebogen. Eine schwache Querschwiele, welche nächst den Vorderwinkeln der Augen in eine

¹ In zwei weiteren Exemplaren dieser Art ist dieser kleine Doppelfleck nicht vorhanden.

² Diese Mittellängsrinne des letzten Abdominalsegmentes erwähnt Westwood [*Trans. Ent. Soc. London* (1863), III, 1, 631, 632], ebenfalls von *A. semperi* und *A. newmanni* Westw.

höckerartige Erhöhung ausläuft. Von dieser ein schmaler bis zur Mitte des Auges reichender tomentierter Steg. Clypeus, Stirn und Scheitel kräftig zusammenfliessend punktiert. Fühler schwarz und fein behaart. Erstes Glied lederartig gerunzelt, die folgenden glänzend und fein punktiert. Halsschild im diskalen Teil weitläufig und fein, nächst den Seitenrändern kräftiger und dichter punktiert. Je ein grösserer unregelmässiger Tomentfleck etwas seitlich der Mitte nächst dem Vorderrande. Schildchen mit einigen Punkten, der Verlauf nach der Mesothorax glänzend und kräftig lederartig gerunzelt. Flügeldecken je seitlich der Naht mit einer Nadelrisslinie. Nächst den Schultern mit kurzen bogen- oder hakenförmigen, im diskalen Teil mit längeren, mehr strichförmigen, längsreihenartig gesetzten Nadelrissen. Die ziemlich stark entwickelten Hinterbuckel der Flügeldecken kräftig zusammenfliessend punktiert. Flügeldecken im ersten Drittel ihrer Länge nächst der Naht mit einem grösseren querbandartigen Doppelfleck. Etwas dahinter, seitlich, bis zum Seitenrand reichend, ein W-förmiger Tomentfleck. Im letzten Drittel, seitlich der Naht, je ein kleiner querstrichförmiger und mehrere andere sehr kleine Flecken. Die ockerfarbige Tomentierung ist sammtartig glänzend. Propygidium je seitlich mit einer kräftig entwickelten schwarz glänzenden Tuberkel. Ersteres sowie das Pygidium kräftig lederartig gerunzelt. Pro-, Meso- und Metathorax kräftig lederrunzelig und stellenweise tomentiert. Abdominalsegmente weitläufig punktiert, mit Ausnahme des letzten Segmentes, besonders nach den Hinterrändern zu tomentiert. Schenkel kräftig punktiert, Schienen lederartig gerunzelt und mit einem spitzen Zahn am Aussenrande.

Länge, ♂, 12.5 Millimeter; Schulterbreite, 6.

Länge, ♀, 14 Millimeter; Schulterbreite, 6.5.

LUZON, Laguna, Paete (♂) (*A. de los Reyes*); Rizal, Montalban (♀) (*W. Schultze*).

Typen in meiner Sammlung.

Die Tomentflecke der Flügeldecken variieren, an einem weiteren Exemplar von Montalban sind die grösseren mittleren durch einen Querstrich mit denen am Seitenrand verbunden.

THE PHILIPPINE JOURNAL OF SCIENCE

D. GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

VOL. XI

NOVEMBER, 1916

No. 6

A COLLECTION OF TERMITES FROM THE PHILIPPINE ISLANDS

By MASAMITSU OSHIMA

(Institute of Science, Government of Formosa)

TWO PLATES

The termite fauna of the Philippine Islands is supposed to be an exceedingly rich one. However, it has been but little studied. In 1914 Professor C. F. Baker, of the University of the Philippines, made a careful collection of termites at Los Baños, Laguna Province, Luzon, and very kindly sent the specimens to me for examination. This collection contained representatives of six species, which were described by me as new.¹

Recently I received lots of Philippine termites from Mr. R. C. McGregor, of the Bureau of Science, Manila, which were mainly collected by him at Sarai, near Paete, Laguna Province, Luzon. After a close comparison of these two collections, I have detected four new species and two species not previously recorded from the Philippine Islands, namely:

Eutermes (Eutermes) gracilis sp. nov.

Eutermes (Eutermes) manilensis sp. nov.

Eutermes (Hospitalitermes) hospitalis Haviland.

Eutermes (Hospitalitermes) saraiensis sp. nov.

Eutermes (Ceylonitermes) mcgregori sp. nov.

Rhinotermes (Schedorhinotermes) longirostris (Brauer).

In the present paper a record of the termites of the latter collection is given. The species of Baker's collection that are not included in McGregor's material are given for the sake of completeness.

My thanks are due Mr. McGregor, who has forwarded the interesting specimens to me.

¹ *Ann. Zool. Jap.* (1914), 8.

MESOTERMITIDÆ

COPTOTERMITINÆ

Genus COPTOTERMES Wasmann

Coptotermes flavicephalus Oshima. Plate II, fig. 8.

Coptotermes flavicephalus OSHIMA, Ann. Zool. Jap. (1914), 8, 558.

Imago.—Unknown.

Soldier.—Head pale yellow; mandibles brown; abdomen straw-colored. Head sparingly pilose; abdominal tergites densely provided with hairs.

Head suborbicular, broad, and flattened; fontanelle directed forward; basal portion of clypeus short; labrum tongue-shaped, with pointed tip, scarcely reaching to middle of mandibles; mandibles saber-shaped, with strongly incurved tip; antennæ 15- or 16-jointed, 3d joint nearly as long as 2d; pronotum broad, anterior and posterior borders bilobed.

	Mm.
Length of body	6.00–6.50
Length of head with mandible	2.75
Length of head without mandible	1.63
Width of head	1.53
Width of pronotum	1.03–1.09
Length of pronotum	0.63

Worker.—Head yellowish white; abdomen whitish. Head sparingly pilose; abdominal tergites moderately provided with subequal hairs.

Antennæ 15-jointed, 3d joint shorter than 2d; anterior border of pronotum bilobed; posterior border straight.

	Mm.
Length of body	5.00
Width of head	1.44
Width of pronotum	0.78

Habitat.—LUZON, Los Baños, Laguna (*Baker*).

RHINOTERMITINÆ

Genus RHINOTERMES Hagen

Rhinotermes (*Schedorhinotermes*) *longirostris* (Brauer). Plate II, figs. 9 and 10.

Imago.—Unknown.

Soldier (the larger form).—Head yellow; mandibles brown; abdomen, antennæ, and legs straw-colored. Head sparingly provided with spiny hairs; abdominal tergites moderately pilose.

Head quadrate, sides slightly converging anteriorly, posterior border rounded; fontanelle distinct, directed upward, situated

between antennal fossæ; from the fontanelle runs a shallow groove, reaching to apex of labrum, slightly widening anteriorly; clypeus grooved along the median line, boundary between apical and basal portions indistinct; labrum tongue-shaped, longer than broad, tip bilobed and anteriorly provided with a cluster of short hairs, reaching beyond the middle of mandible; mandibles stout, with strongly incurved tip, the left provided with two teeth, the right with one tooth; antennæ 16-jointed, 2d joint shorter than 3d, 4th joint nearly half as long as 3d; pronotum flat, anterior border convex, posterior border weakly emarginate at middle; mesonotum as broad as pronotum; metanotum broader and shorter than the former.

	Mm.
Length of body	4.50
Length of head with mandible	2.00
Length of head without mandible	1.37
Width of head	1.34
Width of pronotum	0.75
Length of pronotum	0.50

Soldier (the smaller form).—Head yellow; mandibles light brown; abdomen pale yellow; antennæ and legs straw-colored. Head very sparingly pilose; abdominal tergites with a series of spiny hairs along the posterior border.

Head pear-shaped, sides converging anteriorly; fontanelle distinct, directed upward, with a shallow groove running from it to tip of labrum; clypeus tongue-shaped, swollen on both sides of the median groove; labrum elongate, rectangular; tip bilobed, reaching beyond the tip of mandible, its outer border densely provided with minute hairs; mandibles slender, saber-shaped, with incurved tip, the left provided with two teeth, the right with one tooth; antennæ 15-jointed, 2d joint nearly as long as 4th and longer than 3d, 3d joint the shortest and narrowest; pronotum minute, anterior border convex, posterior border nearly straight; mesonotum slightly broader than pronotum; metanotum much broader than the former.

	Mm.
Length of body	3.50
Length of head with mandible	1.37
Length of head without mandible	0.81
Width of head	0.72
Width of pronotum	0.50
Length of pronotum	0.31

Worker.—Head yellowish white; abdomen whitish. Head and abdominal tergites densely pilose.

Head quadrate, with rounded posterior border; clypeus mark-

edly swollen; antennæ 16-jointed, 2d joint longer than 3d, 4th joint nearly half as long as 3d; pronotum semilunar, anterior border elevated.

	Mm.
Length of body	4.20
Width of head	1.25
Width of pronotum	0.59

Habitat.—LUZON, Laguna, Sarai, near Paete (McGregor), June, 1915.

METATERMITIDÆ

Genus TERMES (L.) Holmgren

Termes (Macrotermes) *manilanus* Oshima. Plate I, figs. 3-5.

Termes (Macrotermes) *manilanus* OSHIMA, Ann. Zool. Jap. (1914), 8, 565.

Imago.—Body chestnut-brown, paler on ventral side; basal portion of clypeus yellow; antennæ, T-shaped patch on pronotum, anterolateral corners of the same, anterior border of mesonotum and metanotum brownish yellow. Head sparingly pilose; abdominal tergites provided with subequal hairs; labrum, pronotum, and wing stumps densely pilose.

Head broadly oval, sides slightly converging anteriorly, somewhat flattened; eyes very large, prominent; ocelli separated from eye by a distance equal to their radius; fontanelle indistinct, slightly elevated; basal portion of clypeus very large, shorter than half of the width, markedly swollen; antennæ 19-jointed, 3d joint slightly longer than 2d, 4th joint shorter than 3d; pronotum semicircular, broader than head, anterior border concave, posterior border weakly curved at middle; mesonotum and metanotum as broad as pronotum, their posterior borders concave; wings yellowish brown, with yellowish costal band, densely pilose; median nerve of anterior wing runs near to cubitus, starting from the wing stump, branched in the middle area of wing, with about three branches; cubitus with about seven branches, of which the proximal ones are stronger.

	Mm.
Length of body with wing	27.00
Length of body without wing	12-14.00
Length of head	1.86
Width of head	2.00
Width of pronotum	2.33
Length of pronotum	1.53
Length of anterior wing	24.00

Habitat.—LUZON, Manila (Banks), December 10, 1911; Laguna, Paete (McGregor), August 5, 1915, Sarai (McGregor), June, 1915.

Termes (*Macrotermes*) *philippinensis* Oshima. Plate I, figs. 7 and 8.

Termes (*Macrotermes*) *philippinensis* OSHIMA, Ann. Zool. Jap. (1914), 8, 566.

Imago.—Body chestnut-brown, ventral side paler; basal portion of clypeus, labrum, antennæ, T-shaped patch on pronotum, and anterolateral corners of the same brownish yellow; wings brown. Head densely pilose, short, delicate hairs being intermingled with longer, spiny hairs; abdominal tergites densely provided with minute hairs; wing stumps moderately pilose.

Head round, with sides considerably converging anteriorly; eyes moderately large; ocelli separated from eye by a distance greater than their diameter; fontanelle dotted, reddish, somewhat elevated; transversal band depressed; basal portion of clypeus slightly shorter than half of its width, markedly swollen; antennæ 19-jointed, 2d joint much longer than 3d, 4th joint as long as 3d; pronotum slightly broader than head, nearly saddle-shaped, anterolateral corners markedly swollen, anterior and posterior borders bilobed; median nerve of anterior wing proximally coalescent with cubitus, the former with about four branches in the apical portion, the latter with ten branches, most of them forked.

	Mm.
Length of body with wing	26.00
Length of body without wing	13.00
Length of head	1.50
Width of head	2.00
Width of pronotum	2.19
Length of pronotum	1.25
Length of anterior wing	21.50

Soldier (the larger form).—Head reddish brown, with black-brown mandibles; abdomen yellowish; antennæ dark yellow. Head and abdominal tergites hairless.

Head quadrangular, sides strongly converging anteriorly; fontanelle distinct, minute, situated in front of the center of head; basal portion of clypeus short, posteriorly not separated from forehead; labrum tongue-shaped, with triangular hyaline tip; mandibles stout, tip slightly incurved; antennæ 17-jointed, 3d joint slightly longer than 2d; pronotum broad, anterior and posterior borders bilobed; sides of mesonotum and metanotum rounded.

	Mm.
Length of body	8.50–9.50
Length of head with mandible	4.66–5.20
Length of head without mandible	3.33–3.66
Width of head	2.66–2.93
Width of pronotum	2.33–2.56
Length of pronotum	1.12–1.33

Soldier (the smaller form).—Head reddish brown; abdomen straw-colored; mandibles reddish brown; labrum, antennæ, and legs somewhat paler. Head smooth; abdominal tergites provided with microscopically minute hairs, two or three posterior tergites with longer hairs.

Head quadrangular, sides strongly converging anteriorly; fontanelle indistinct; basal portion of clypeus short, posteriorly not separated from forehead; labrum lancet-shaped, with pointed, hyaline tip; mandibles saber-shaped, tip strongly incurved; antennæ 17-jointed, 2d joint as long as 3d, 4th joint slightly shorter than 3d; pronotum semicircular, anterior and posterior borders weakly indented at middle; mesonotum considerably narrower than pronotum, sides rounded, posterior border slightly concave; metanotum as broad as pronotum, oval, posterior border straight.

	Mm.
Length of body	6.00–7.00
Length of head with mandible	3.59–3.75
Length of head without mandible	1.81–2.18
Width of head	1.56–1.75
Width of pronotum	1.40–1.44
Length of pronotum	0.78–0.84

Worker (the larger form).—Head reddish yellow; abdomen yellowish. Head and abdominal tergites sparingly pilose.

Head quadrate, with rounded posterior border; basal portion of clypeus markedly swollen; fontanelle whitish, round; antennæ 18-jointed, 2d joint nearly as long as 3d, 4th joint half as long as 3d; pronotum saddle-shaped, anterior and posterior borders bilobed.

	Mm.
Length of body	6.00–6.50
Width of head	1.97–2.12
Width of pronotum	1.09–1.21

Worker (the smaller form).—Paler and smaller. Hairiness as in the former.

Antennæ 17-jointed, 2d joint slightly longer than 3d, 4th joint as long as 3d.

	Mm.
Length of body	5.00–5.50
Width of head	1.31–1.39
Width of pronotum	0.91

Habitat.—LUZON, Laguna, Los Baños and Mount Maquiling (*Baker*); Manila (*Banks*), June 26, 1910.

Termes (*Macrotermes*) *luzonensis* Oshima. Plate I, figs. 1 and 2.

Termes (*Macrotermes*) *luzonensis* OSHIMA, Ann. Zool. Jap. (1914), 8, 569.

Imago.—Unknown.

Soldier (*the larger form*).—Head reddish brown; abdomen dark yellow. Head and abdominal tergites smooth.

Head broadly oval, with rounded posterior border, sides converging anteriorly, slightly vaulted above; no rudiment of eye; fontanelle situated in front of the center of head, round and minute; basal portion of clypeus very short; labrum tongue-shaped, short, with triangular, hyaline tip; mandibles short, stout; antennæ 17-jointed, 3d joint as long as 2d, 4th joint as long as 5th and slightly shorter than 3d; pronotum broad, anterior and posterior borders bilobed; mesonotum oval, narrower than pronotum, posterior border slightly emarginate at middle; metanotum as broad as mesonotum, posterior border straight; sides of mesonotum and metanotum rounded.

	Mm.
Length of body	7.50–8.00
Length of head with mandible	4.13
Length of head without mandible	2.66–2.75
Width of head	2.25–2.28
Width of pronotum	1.88–1.94
Length of pronotum	1.03–1.09

Soldier (*the smaller form*).—Rather paler and smaller than the above larger form.

Head yellow; abdomen straw-colored. Head smooth; abdominal tergites provided with microscopically minute hairs, longer hairs intermingled with such in the posterior tergites.

Head broadly oval, sides slightly converging anteriorly; labrum long, slender, lancet-shaped, with obtuse hyaline tip; mandibles slender; basal portion of clypeus slightly swollen; fontanelle indistinct; antennæ 17-jointed, 2d joint as long as 3d, 4th joint as long as 3d; pronotum much narrower than head, longer than half the width, anterior and posterior borders indented at middle, the former convex; mesonotum narrower than pronotum, metanotum as broad as pronotum, their lateral sides rounded.

	Mm.
Length of body	5.50
Length of head with mandible	2.97
Length of body without mandible	1.72
Width of head	1.45
Width of pronotum	1.09
Length of pronotum	0.69

Worker.—Head yellow; abdomen straw-colored. Head and abdominal tergites sparingly provided with subequal hairs.

Head round; fontanelle spotted, whitish; basal portion of clypeus swollen; antennæ 17-jointed, 3d joint shorter than 2d, 4th joint as long as 3d; pronotum saddle-shaped, provided with a median, shallow longitudinal groove, anterior border strongly elevated and bilobed, posterior border indented at middle.

	Mm.
Length of body	4.50
Width of head	1.66
Width of pronotum	0.90

Habitat.—LUZON, Laguna, Los Baños (*Baker*).

Termes (*Termes*) *copelandi* Oshima. Plate II, figs. 1 and 2.

Termes (*Termes*) *copelandi* OSHIMA, Ann. Zool. Jap. (1914), 8, 570.

Imago.—Unknown.

Soldier (the larger form).—Head reddish brown, antennæ and legs paler; abdomen dark yellow. Head hairless; abdominal tergites provided with microscopically minute hairs.

Head cylindrical, sides very slightly converging anteriorly; fontanelle dotted, minute, situated at the center of head; basal portion of clypeus very short; labrum lancet-shaped, with pointed, hyaline tip; mandibles stout, short; antennæ 17-jointed, 2d joint as long as 3d, 4th joint slightly shorter than 3d; pronotum broad, anterior and posterior borders distinctly indented at middle, the former slightly elevated; mesonotum and metanotum considerably narrower than pronotum; their lateral margins rounded, posterior borders concave.

	Mm.
Length of body	8.50
Length of head with mandible	4.53
Length of head without mandible	2.97
Width of head	2.56
Width of pronotum	2.03–2.19
Length of pronotum	1.09–1.19

Soldier (the smaller form).—Head yellow; abdomen straw-colored. Head hairless; abdominal tergites moderately pilose, hairs microscopical.

Head oval, sides slightly converging anteriorly; fontanelle minute; labrum lancet-shaped, with hyaline tip; antennæ 17-jointed, 2d and 3d joints as long as 4th; pronotum slightly nar-

rower than head, anterior and posterior borders weakly indented at middle, the former convex.

	Mm.
Length of body	5.00-6.00
Length of head with mandible	3.03-3.19
Length of head without mandible	1.69-1.90
Width of head	1.46-1.56
Width of pronotum	1.12-1.22
Length of pronotum	0.68-0.72

Worker (the larger form).—Head yellow; abdomen whitish; antennæ brownish. Head sparingly pilose, abdominal tergites provided with subequal hairs.

Head round; fontanelle whitish, round, no rudiments of eye; forehead in front of fontanelle depressed; basal portion of clypeus shorter than half the width, slightly swollen; pronotum saddle-shaped; antennæ 18-jointed, 2d joint as long as 3d, 4th joint shorter than 3d.

	Mm.
Length of body	5.00-6.00
Width of head	1.88
Width of pronotum	1.00-1.06

Worker (the smaller form).—Apical portion of clypeus whitish, its basal portion half as long as broad, markedly swollen; antennæ 17-jointed, 3d and 4th joints subequal, considerably shorter than 2d.

	Mm.
Length of body	5.00
Width of head	1.25
Width of pronotum	0.75-0.88

Habitat.—LUZON, Laguna, Los Baños (*Baker*); PALAWAN (*W. Schultze*).

Genus EUTERMES Müller

Eutermes (*Hospitalitermes*) *saraiensis* sp. nov. Plate II, fig. 3.

Imago.—Unknown.

Soldier.—Head reddish brown, tip of rostrum somewhat paler; thorax and abdomen brown; proximal joint of antennæ reddish brown, the other joints paler, darker proximally; femur brown, tibia and tarsus yellow. Head smooth; abdominal tergites provided with minute hairs, posterior three tergites with a series of long hairs along their posterior border.

Head suborbicular, anterior surface of rostrum making a marked curve with dorsal surface of head; antennæ 14-jointed, 2d joint half as long as 3d, 4th joint as long as 3d; apical por-

tion of mandibles toothless; pronotum saddle-shaped, anterior border not indented at middle; legs slender and elongated.

	Mm.
Length of body	3.20
Length of head with rostrum	1.62
Length of head without rostrum	1.25
Width of head	1.03
Width of pronotum	0.62

Worker.—Head dark brown; color of antennæ, legs, and abdomen as in the soldier. Head provided with minute hairs; posterior abdominal tergites coarsely provided with long spiny hairs along the posterior border.

Head round, sides converging anteriorly, transversal band depressed anteriorly; sutures of head distinct; basal portion of clypeus shorter than half the width; pronotum saddle-shaped, anterior border rounded, not emarginate at middle; antennæ 15-jointed, 2d joint shorter than 3d, 4th joint as long as 3d.

	Mm.
Length of body	3.80
Width of head	1.09
Width of pronotum	0.78

Habitat.—LUZON, Laguna, Sarai, near Paete (*McGregor*), June, 1915.

Entermes (Hospitalitermes) hospitalis Haviland. Plate II, figs. 12–14.

Imago.—Unknown.

Soldier.—Head and abdominal tergites dark chestnut-brown, tip of rostrum paler; antennæ and legs reddish brown. Head and most of abdominal tergites hairless; anterior border of pronotum provided with a series of minute hairs.

Head pear-shaped, anterior part somewhat constricted behind the junction of rostrum; rostrum conical, rather short, its upper surface making a strong curve with the surface of top of head; antennæ 14-jointed, each joint slender and elongated, 3d joint more than twice as long as 2d, 4th joint slightly shorter than 3d; mandibles with pointed apical portion; pronotum saddle-shaped, anterior border rounded, not indented at middle; legs slender and elongated.

	Mm.
Length of body	4.00
Length of head with rostrum	1.66
Length of head without rostrum	1.19
Width of head	0.93
Width of pronotum	0.62

Worker (the larger form).—Color as in the soldier. Head and abdominal tergites provided with microscopically minute hairs.

Head round, sides slightly converging anteriorly, dorsal sutures whitish; middle part of transversal band triangularly depressed; basal portion of clypeus markedly swollen, shorter than half the width; antennæ 15-jointed, 3d joint twice as long as 2d, 4th joint slightly shorter than 3d; pronotum saddle-shaped, anterior border entire.

	Mm.
Length of body	4.50
Width of head	1.12
Width of pronotum	0.78

Worker (the smaller form).—Color and hairiness as in the former; antennæ 15-jointed, 2d to 4th joints subequal in length.

	Mm.
Length of body	3.50
Width of head	1.00
Width of pronotum	0.59

Habitat.—LUZON, Laguna, Sarai, near Paete (*McGregor*), June 13, 1915.

Eutermes (Ceylonitermes) mcgregori sp. nov. Plate I, fig. 10.

Imago (wingless).—Head brownish yellow; abdomen paler; antennæ, pronotum, and legs golden yellow; wing stumps darker. Head coarsely provided with long spiny hairs; pronotum and wing stumps densely pilose; abdominal tergites provided with two series of long spiny hairs.

Head round, sides slightly converging anteriorly, flattened; eye large, prominent; ocelli separated from eye by a distance of their diameter; fontanelle distinct, situated just behind the line of ocellus; basal portion of clypeus posteriorly not separated from forehead; antennæ 15-jointed, 3d joint longer than 2d, 4th joint as long as 2d; pronotum considerably broader than head, semi-lunar, longer than half of the width, anterior border nearly straight, posterior border rounded, anterolateral corners markedly depressed; anterior wing stumps covering anterior half of the posterior.

	Mm.
Length of body	7.50
Length of head	1.34
Width of head	1.40
Width of pronotum	1.50
Length of pronotum	0.96

Soldier.—Head pale brown, rostrum darker; antennæ pale brown; legs and abdominal tergites pale yellowish white. Head pilose, long spiny hairs intermingled with microscopically minute hairs; abdominal tergites provided with minute hairs, in the

posterior tergites a series of long spiny hairs intermingled with such along the posterior border.

Head suborbicular, sides slightly constricted in front and slightly converging anteriorly; rostrum slender, conical, its dorsal surface making a weak curve with upper surface of head; antennæ 12-jointed, 2d to 4th joints subequal in length; pronotum saddle-shaped, anterior border rounded; legs slender.

	Mm.
Length of body	4.00
Length of head with rostrum	1.56
Length of head without mandible	0.90
Width of head	0.93
Width of pronotum	0.46

Worker.—Head pale yellow, dorsal sutures whitish; abdomen and legs white. Head sparingly pilose; abdominal tergites moderately provided with minute hairs.

Head round; basal portion of clypeus shorter than half the width; antennæ 14-jointed, 2d joint nearly twice as long as 3d, 4th joint ring-shaped; pronotum saddle-shaped, anterior border entire.

	Mm.
Length of body	3.50
Width of head	0.96
Width of pronotum	0.46

Habitat.—LUZON, Laguna, Sarai, near Paete (*McGregor*), June, 1915.

Eutermes (*Eutermes*) *gracilis* sp. nov. Plate I, fig. 9; Plate II, figs. 4 and 5.

Imago.—Unknown.

Soldier.—Head and antennæ dark yellow, rostrum reddish brown; abdomen and legs straw-colored. Head very sparingly pilose; abdominal tergites provided with microscopically minute hairs, small number of spiny hairs intermingled with such.

Head round, with a slender conical rostrum, anterior surface of the latter in the same plane of top of head; apical portion of mandible pointed, rudimentary; antennæ 12-jointed, 2d joint as long as 3d, 4th joint much longer than 3d; pronotum saddle-shaped, anterior border bilobed.

	Mm.
Length of body	3.00–3.50
Length of head with rostrum	1.59
Length of head without rostrum	0.84
Width of head	0.93
Width of pronotum	0.47

Worker.—Head yellow; abdomen milk-white; antennæ and

legs yellowish white. Hairiness of head and abdomen as in the soldier.

Head round, dorsal sutures distinct, whitish; basal portion of clypeus shorter than half the width, markedly swollen; antennæ 14-jointed, 2d joint longest, nearly twice as long as 4th, 4th joint shorter than 3d; pronotum saddle-shaped, with bilobed anterior border.

	Mm.
Length of head	3.00
Width of head	1.03
Width of pronotum	0.56

Habitat.—LUZON, Laguna, Sarai, near Paete (McGregor), June 26, 1915.

Eutermes (*Eutermes*) *manilensis* sp. nov. Plate I, fig. 6; Plate II, fig. 11.

Imago.—Unknown.

Soldier.—Head and rostrum black-brown, tip of the latter paler; thorax and abdomen pale reddish brown; antennæ and legs yellowish brown. Head coarsely provided with long spiny hairs; abdominal tergites nearly smooth, in the posterior tergites long spiny hairs intermingled with microscopically minute hairs.

Head ovoid, with a conical rostrum, anterior surface of the latter making a weak curve with top of head; antennæ 12-jointed, 3d joint much longer than 2d, 4th joint as long as 2d; mandibles with a toothless apical portion; pronotum saddle-shaped, slightly elevated anteriorly, anterior border weakly indented at middle.

	Mm.
Length of body	4.00
Length of head with rostrum	1.87
Length of head without rostrum	1.00
Width of head	1.25
Width of pronotum	0.59

Worker (the larger form).—Head black-brown, transversal band and clypeus paler; abdomen pale yellowish brown; antennæ and legs yellow. Head pilose; abdominal tergites densely provided with delicate hairs.

Head round, sides slightly converging anteriorly, dorsal sutures whitish; basal portion of clypeus slightly swollen, much shorter than half the width; antennæ 14-jointed, 2d joint nearly as long as 3d, 4th joint half as long as 3d; pronotum saddle-shaped, anterior border indented at middle.

	Mm.
Length of body	5.80
Width of head	1.47
Width of pronotum	0.87

Worker (the smaller form).—Head yellowish brown, rather paler; antennæ, legs, and abdomen straw-colored. Head sparingly pilose; abdominal tergites provided with two series of spiny hairs; antennæ 14-jointed, 2d joint longer than 3d, 4th joint ring-shaped, half as long as 3d; pronotum saddle-shaped, anterior border entire.

	Mm.
Length of body	4.00
Width of head	0.93
Width of pronotum	0.53

Habitat.—LUZON, Manila (*Banks*), May 20, 1915, in mango, *Mangifera indica* Linn.

Eutermes (*Grallatotermes*) *luzonicus* Oshima. Plate II, fig. 6.

Eutermes (*Grallatotermes*) *luzonicus* OSHIMA, Ann. Zool. Jap. (1914), 8, 581.

Imago.—Unknown.

Soldier (the larger form).—Head dark brown; abdomen dark yellow, shiny. Head very sparingly provided with spiny hairs; abdominal tergites densely provided with minute hairs, posterior tergites with longer spiny hairs along the posterior border.

Head broadly oval; rostrum conical, its anterior surface making a curve with the anterior surface of head, basal part slightly swollen; apical portion of mandibles very short; antennæ 13-jointed, 3d and 4th joints longer than 2d; pronotum saddle-shaped, anterior border slightly indented at middle, posterior border rounded.

	Mm.
Length of body	4.00
Length of head with mandible	1.78–1.81
Length of head without mandible	1.06
Width of head	1.16–1.22
Width of pronotum	0.56

Soldier (the smaller form).—Color as in the former; head and abdominal tergites nearly smooth, very sparingly provided with spiny hairs; antennæ 13-jointed, 3d joint nearly as long as 2d.

	Mm.
Length of body	3.50
Length of head with rostrum	1.65
Length of head without mandible	1.00
Width of head	1.09
Width of pronotum	0.50

Worker (the larger form).—Head chestnut-brown, abdomen yellowish white. Head sparingly provided with spiny hairs; abdominal tergites covered by delicate hairs, posterior tergites with longer hairs.

Head quadrate, with rounded posterior border, dorsal sutures distinct; basal portion of clypeus much shorter than half the width, slightly swollen; antennæ 14-jointed, 3d joint longer than 2d, 4th joint shorter than 3d; pronotum saddle-shaped, anterior border bilobed.

	Mm.
Length of body	5.00
Width of head	1.25
Width of pronotum	0.78

Worker (the smaller form).—Head dark brown, transversal band considerably paler. Head coarsely pilose; abdominal tergites densely provided with minute hairs, with a series of spiny hairs along their posterior border.

Dorsal sutures of head distinct; antennæ 14-jointed, 2d joint as long as 3d, 4th joint much shorter than 3d; pronotum saddle-shaped, anterior and posterior borders rounded, not indented at middle.

	Mm.
Length of body	3.80
Width of head	0.94
Width of pronotum	0.44

Habitat.—LUZON, Laguna, Los Baños (*Baker*).

Genus *MICROCEROTERMES* Wasmann

Microcerotermes los-banosensis Oshima. Plate I, fig. 11.

Microcerotermes los-banosensis OSHIMA, Ann. Zool. Jap. (1914), 8, 533.

Imago.—Unknown.

Soldier.—Head yellow; mandibles brown; abdomen white. Head very sparingly pilose; abdominal tergites thinly provided with microscopical hairs.

Head quadrangular, elongated, with rounded corners, slightly vaulted above, truncated in front; no fontanelle; posterior border of clypeus arcuate, anterior border straight; labrum short and broad, tongue-shaped; mandibles slender, saber-shaped, with strongly incurved piercing tip, masticating edge minutely serrated; antennæ 13-jointed, 1st joint very stout, 3d joint shorter and narrower than 2d, 4th joint as long as 2d; pronotum saddle-shaped, anterior and posterior borders rounded and indented at middle.

	Mm.
Length of body	5.50
Length of head with mandible	2.56-2.66
Length of head without mandible	1.66-1.72
Width of head	1.03
Width of pronotum	0.34
Length of pronotum	0.66

Worker.—Head pale yellow, abdomen white. Head moderately pilose; abdominal tergites densely provided with minute hairs.

Head broadly oval, slightly longer than broad; dorsal sutures of head indistinct, whitish; basal portion of clypeus half as long as broad, anterior border straight, posterior border convex, slightly swollen, with a shallow median groove; antennæ 13-jointed, 3d joint minute, half as long as 2d, 4th joint longer than 3d; pronotum saddle-shaped, anterior border slightly indented at middle.

	Mm.
Length of body	4.20
Width of head	0.94
Width of pronotum	0.58

Habitat.—LUZON, Laguna, Los Baños (*Baker*).

ILLUSTRATIONS

[All figures, except those of wings, are made to the same scale.]

PLATE I

- Fig. 1. *Termes* (M.) *luzonensis*, larger form of soldier.
2. *Termes* (M.) *luzonensis*, smaller form of soldier.
3. *Termes* (M.) *manilanus*, head and pronotum of imago.
4. *Termes* (M.) *manilanus*, anterior wing.
5. *Termes* (M.) *manilanus*, posterior wing.
6. *Eutermes* (E.) *manilensis*, soldier.
7. *Termes* (M.) *philippinensis*, larger form of soldier.
8. *Termes* (M.) *philippinensis*, smaller form of soldier.
9. *Eutermes* (E.) *gracilis*, soldier.
10. *Eutermes* (C.) *mcgregori*, soldier.
11. *Microcerotermes los-banosensis*, soldier.

PLATE II

- Fig. 1. *Termes* (T.) *copelandi*, larger form of soldier.
2. *Termes* (T.) *copelandi*, smaller form of soldier.
3. *Eutermes* (H.) *saraiensis*, soldier.
4. *Eutermes* (E.) *gracilis*, mandible of soldier.
5. *Eutermes* (E.) *gracilis*, lateral view of soldier's head.
6. *Eutermes* (G.) *luzonicus*, dorsal view of soldier's head.
7. *Eutermes* (G.) *luzonicus*, soldier.
8. *Coptotermes flavicephalus*, soldier.
9. *Rhinotermes* (S.) *longirostris*, larger form of soldier.
10. *Rhinotermes* (S.) *longirostris*, smaller form of soldier.
11. *Eutermes* (E.) *manilensis*, dorsal view of soldier's head.
12. *Eutermes* (H.) *hospitalis*, mandible of soldier.
13. *Eutermes* (H.) *hospitalis*, soldier.
14. *Eutermes* (H.) *hospitalis*, dorsal view of soldier's head.

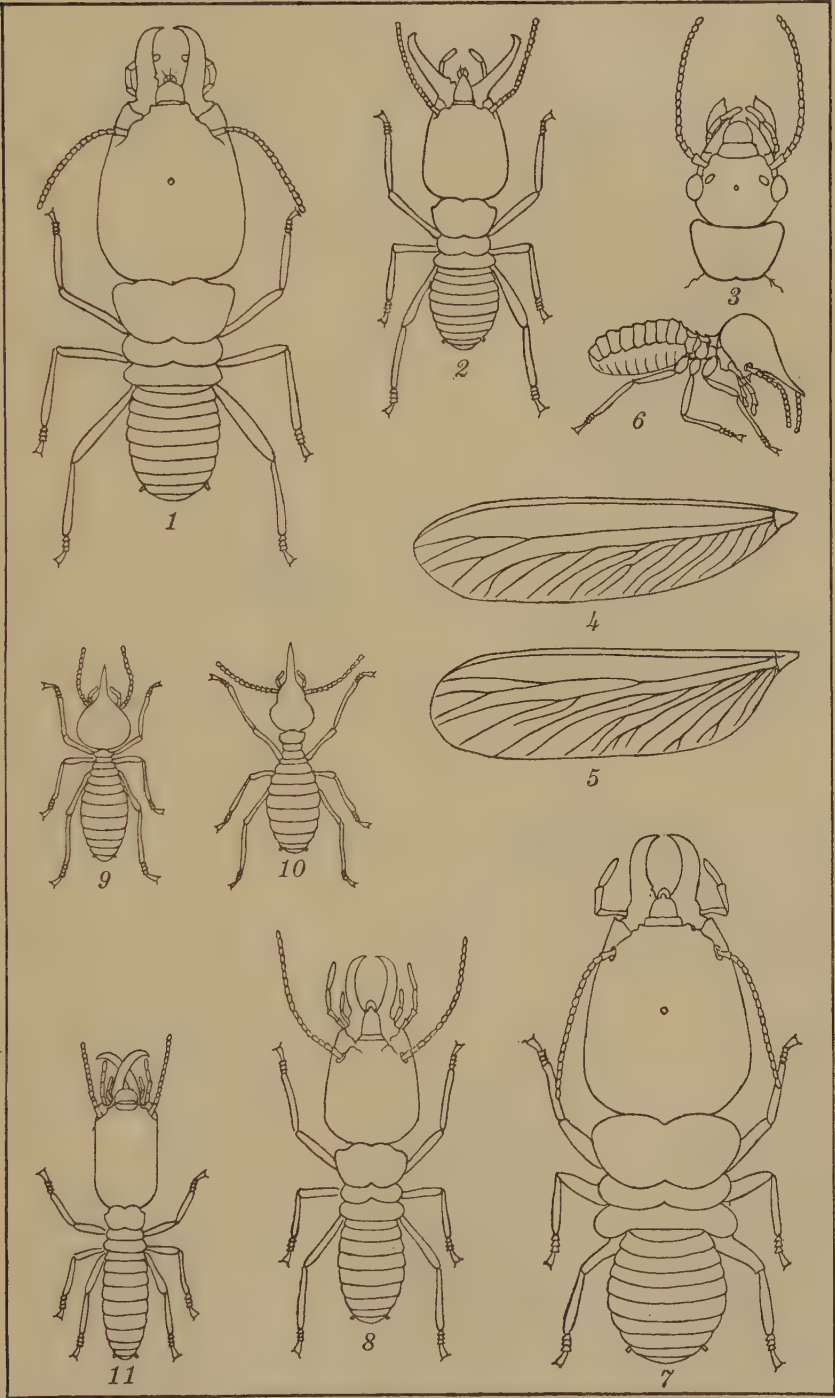


PLATE I. PHILIPPINE TERMITES.

ADDITIONS TO THE KNOWN PHILIPPINE DELPHACIDÆ
(HEMIPTERA)

By FREDERICK MUIR

(Hawaiian Sugar Planters' Association, Honolulu, H. T.)

The Delphacidæ have been greatly neglected by collectors, especially in the tropics. This is seen in the species previously reported from the Philippine Islands, which amount to less than one dozen. The present list brings the number up to forty. This is but a small part of what will be eventually found. In Prof. C. F. Baker's collection are several undetermined species that I am unable to handle until my return to Honolulu.

The lack of knowledge of this family is to be regretted, as many of its species are of great economic importance. Were it not for the host of parasites that keep these species in check, many of our crops would be devastated.

In working out the species of this family, it is absolutely necessary to use the structural characters found in the male genitalia; especially is this the case in the complex of genera grouped about *Liburnia*, and failure to do so will lead to great confusion.

ASIRACINÆ

Genus **UGYOPS** Guérin

Ugyops GUÉRIN, Voy. Belanger, Zool. (1834), 4, 477.

Ugyops pictifrons Stål.

Ugyops pictifrons STÅL, Ofr. k. Vet.-Akad. Forh. (1870), 747.

MINDANAO and BASILAN (*Baker*).

Ugyops impictus Stål.

Ugyops impictus STÅL, Ofr. k. Vet.-Akad. Forh. (1870), 748.

MINDANAO and BASILAN (*Baker*).

Genus **MELANESIA** Kirkaldy

Melanesia Kirkaldy, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907),
No. 3, 128.

Melanesia granulata (Melichar).

Ugyops granulatus MELICHAR, Phil. Journ. Sci., Sec. D (1914), 9, 175
(included, evidently inadvertently, in *Cixiina*).

Both joints of antennæ are longer and more slender than in the type, but the short vertex and the tegmina place it in *Mela-*

nesia. The furcation of the median facial carina has no generic importance.

Melanesia brevipennis sp. nov.

Male.—First joint of antennæ slightly more than half the length of second; median frontal carina forking near apex; head wider than long, vertex slightly longer than wide; tegmina reaching to end of abdomen.

Light brown; face darker with some small light dots on genæ; apex of clypeus dark; pro- and mesonotum dark between carinæ; dark over coxæ; abdomen dark with lighter marks along sides. Tegmina light brown, with dark brown or black markings over clavus, along veins, and over cross veins; the whole surface of tegmina granulated; wings light brown with dark veins.

Genitalia very similar to those of *M. pacifica* Kirkaldy; anal segment short but large, covering the greater portion of the opening of pygophor; a quadrate emargination occurs on ventral edge of pygophor through which the genital styles protrude; styles narrow, straight at base, then curved, the apices bluntly pointed.

Length, 4.3 millimeters; tegmen, 3.4.

Female.—Similar to male.

MINDANAO, Butuan (*Baker*).

Melanesia luzonensis sp. nov.

Male.—Both joints of antennæ longer than in *M. pacifica* Kirkaldy, the second more slender and terete. Vertex, middle of pro- and mesonotum, antennæ, and legs light brown; face, clypeus, and lateral portions of pro- and mesonotum darker brown; abdomen brown, darker along posterior edges of segments; a faint fuscous ring around second joint of antennæ. Tegmina brown, covered all over with whitish granules, which are more numerous before cross veins; darker over median portion of apical cells; a minute dark mark at apex of each of the first four apical veins; claval margin light, forming, when tegmina is closed, a double diamond pattern down the back.

Pygophor similar in type to that of *M. pacifica* Kirkaldy,¹ but with a subconical median process on the ventral edge. Penis very long, thin, and complex, the basal portion straight, followed by a more slender, curved portion with two spines at its base, the apical portion forming a spiral and ending in a long, slender point.

¹ *Ent. Bull. Hawaiian Sug. Plant. Assoc.* (1907), No. 3, 129, Plate XVII, figs. 13, 14.

Length, 4.5 millimeters; tegmen, 5.3.

Female.—Slightly darker in color, similar in size.

LUZON, Mount Maquiling and Baguio (*Baker*).

This species can be distinguished from *M. granulata* Melichar by the dorsal color pattern; by the medioventral process of pygophor being longer, narrower, and more acute at apex; and by the genital styles being much straighter.

Genus PUNANA Muir

Punana MUIR, Proc. Hawaiian Ent. Soc. (1913); 2, 249.

This genus has a single, simple median carina on face.²

Punana philippina sp. nov.

Male.—Light brown; genæ and face below eyes lighter; legs and ventral surface lighter, legs marked with small dark bands. Tegmina yellow or light brown, minute brown granules irregularly arranged along the veins, also in the cells; apical veins slightly infuscate at margin; wings dark fuscous with darker veins.

Pygophor long, opening ventrad, ventral edge forming a deep, round emargination with a minute, angular projection in the middle; lateral edges also roundly and deeply emarginate, forming a projection on each side of anal segment; anal segment large, convexo-concave, about as broad as long, sides slightly arcuate, apex subtruncate, anus in middle on raised area; styles slightly flattened, broadest at base, apex subacute, basal two thirds straight, at an angle to apical third.

Length, 3.5 millimeters; tegmen, 4.5.

LUZON, Laguna, Mount Banahao (*Baker*).

Punana negrosensis sp. nov.

Male.—This species differs from *P. philippina* in having the front and middle coxæ and femora darker brown, a small fuscous spot in clavus, and fuscous over cross veins and along media to apex.

Pygophor similar in shape to that of *P. philippina*, but the medioventral process square with corners minutely produced, lateral edges without produced processes along edges of anal segment; anal segment with shallow emargination at apex; styles sickle-shaped, basal fifth straight, apical four fifths curved, apex pointed.

²I wrongly stated that this genus possesses two frontal carinæ. *Can. Ent.* (1915), 268.

Length, 3.2 millimeters; tegmen, 3.6.

NEGROS, Cuernos Mountains (*Baker*).

In the Baker collection there are three females from Butuan, Mindanao, and one from Puerto Princesa, Palawan, which I place with this species.

DELPHACINÆ

TROPIDOCEPHALINI

Genus **MALAXA** Melichar

Malaxa MELICHAR, Phil. Journ. Sci., Sec. D (1914), 9, 275.

In this genus the tibial spur is cultrate, with the inner surface concave and with a single apical tooth, none on hind margin. It comes near *Sogatopsis* Muir in the Tropidocephalini.

Malaxa acutipennis Melichar.

Malaxa acutipennis MELICHAR, Phil. Journ. Sci., Sec. D (1914), 9, 275.

One male specimen from Mount Maquiling differs from the description of the type (female) in the following points: Mesonotum, first and second coxæ, all femora, and abdomen except pygophor dark brown. Tegmina with three dark bands, the two across middle uniting on posterior half, the third near base.

Pygophor laterally compressed, edges entire, anal segment very short, projecting but slightly beyond edges of pygophor; styles reaching to lower edge of anal segment, acutely conical, curved inward.

Genus **CONOCRÆRA** novum

Head a little narrower than thorax; vertex triangular, length slightly more than width of base, sides carinate and with a single median longitudinal carina; in profile vertex ascending, making an acute angle with face; length of face four times the breadth or more, base turbinate, sides subparallel, carinæ on sides and a single median carina; clypeus tricarinate, in lateral view slightly curved, antennæ reaching to base of clypeus, terete, joints subequal; pronotum about as long as vertex, hind margin very shallowly and evenly emarginate, tricarinate, lateral carinæ reaching hind margin; mesonotum broader than long, tricarinate, lateral carinæ faint. Spur on hind tibiæ cultrate, slightly convex on inner surface, with a small apical tooth, but no teeth on hind edge. Tegmina laterally compressed, hind margin roundly produced beyond clavus, apex acute; from apex the apical margin forming a continuous curve with costal margin, the latter ending

about half way from apex; media touching both radius and cubitus.

This genus comes near to *Arcofacies* in the Tropidocephalini.

Conocraera acutipennis sp. nov.

Male.—Light green or yellowish, carinae of head and thorax whitish, bordered with a fine brown hair streak, antennae with a dark mark near apex of each joint; legs each with a fine brown longitudinal line. Tegmina light brown or yellowish brown, hyaline along costal cell, through middle of tegmina to apex of median sector, hyaline along inner border of clavus and in radial and median apical cells, a dark mark beyond apex of clavus surrounded with hyaline, veins with white granules, wings fuscous hyaline, veins darker.

Pygophor laterally compressed, ovate, a minute spine on medioventral edge; anal segment short, genital styles reaching to anal segment, flattish, narrow at base, gradually narrowing to apex which is truncate, basal two thirds slightly curved, apical third making a half spiral.

Length, 2 millimeters; tegmen, 2.7.

Female.—Unknown.

LUZON, Laguna, Mount Maquiling (*Baker, 2504*); Benguet, Baguio. PALAWAN, Puerto Princesa (*Baker*).

Genus TROPIDOCEPHALA Stål

Tropidocephala STÅL, Ofr. k. Vet.-Akad. Forh. (1853), 266.

Tropidocephala flava Melichar.

Tropidocephala flava MELICHAR, Notes Leyden Mus. (1914), 109.

The male genitalia are similar to those of *T. saccharicola* Muir,³ the head is much longer in proportion to the thorax, and the tegmina are very much lighter in color.

LUZON, Mount Maquiling, Los Baños. LEYTE, Tacloban. MINDANAO, Davao and Dapitan (*Baker*).

Tropidocephala festiva (Distant).

Samara festiva DISTANT, Fauna Brit. India, Rhyn. (1906), 3, 478.

The Philippine specimens of this species agree with those from Borneo and Java.⁴

LUZON, Los Baños, Mount Maquiling, Mount Banahao, and Baguio. PALAWAN, Puerto Princesa. MINDANAO, Davao (*Baker*).

³ *Proc. Hawaiian Ent. Soc.* (1913), 2, Plate 6, figs. 7, 7a.

⁴ *Ibid.*, Plate 6, figs. 9, 9a.

Tropidocephala philippina Melichar.

Tropidocephala philippina MELICHAR, Phil. Journ. Sci., Sec. D (1914), 9, 273.

The male genitalia of this species agree with those figured of *T. exima* (Kirkaldy), which is considered by Matsumura as a synonym of *T. brunnipennis* Signoret,⁵ which according to present identifications has a wide distribution over Africa, Australia, the Malay Archipelago, eastern Asia, Formosa, and Japan.

LUZON, Los Baños, Mount Maquiling, Mount Banahao, and Baguio. MINDANAO, Iligan, Davao, and Dapitan. PALAWAN, Puerto Princesa (*Baker*).

Tropidocephala saccharivorella Matsumura.

Tropidocephala saccharivorella MATSUMURA, Ann. Mus. Nat. Hung. (1907), 65.

The male genitalia of this species are very similar to those of *T. dryas* (Kirkaldy),⁶ but the base of the genital styles are broader, and there is a curved spine at the base which is absent in *T. dryas*; the pygophor is more rounded and is without the small spines on the lateral margins.

MINDANAO, Iligan (*Baker*). Formerly known from Formosa and southern China.

Tropidocephala nigrocacuminis sp. nov.

Male.—Vertex more than twice the length of pronotum (2.3 to 1). Light green, yellow, or light brown; two black lines on vertex, one on each side of median carina, from apex to middle, a black spot covering apex of face and base of clypeus partly divided by the lighter median carina, genæ below antennæ black, apex of first joint of antenna and a line on second joint black, coxæ and pleura black; abdomen dark with lighter pleura. Tegmina hyaline with minute white granules on veins, apical cells black with a lighter spot in apex of each cell.

Pygophor with a large spine on medioventral edge, lateral edges acutely angular; styles slightly flattened, rounded at base, slightly constricted near base, apex pointed and slightly twisted; a large, curved black spine with a granulated surface arises from the inner edge of the round basal portion of each style.

Length, 2.5 millimeters; tegmen, 3.

⁵ Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 3, Plate 17, figs. 15-16.

⁶ Ibid., Plate 17, figs. 4 and 5.

Female.—Abdomen yellowish, tergites darker, sternites brownish along anterior margin.

Length, 3.5 millimeters; tegmen, 3.2.

LUZON, Mount Maquiling (*Baker, Muir*). MINDANAO, Davao and Iligan (*Baker*).

Tropidocephala baguioënsis sp. nov.

Apex of face ovate, not truncate, the lateral carinæ continuing and meeting, together dividing frons from clypeus; face straight in profile, clypeus forming a wide angle with face (about 130°), median carina on clypeus large. Vertex nearly one and a half times the length of pronotum (1 to 1.4).

Light brown; carinæ of vertex and pro- and mesonotum bordered with a fine black hair streak, most distinct along median carinæ; a fine black ring round apex of first antennal joint and round middle and apex of second; abdomen darker brown; tegmina brown, darkest over basal area between clavus and costa, a hyaline mark in clavus along suture, another from end of clavus to costa, broadest on claval margin, a hyaline spot in subcostal, radial, and first and second median apical cells; veins dark, studded with small white granules, a dark spot on media and another on clavus just in front of cross veins; wings slightly fuscous, veins brown.

Pygophor oval, a small knobbed spine on medioventral margin, no spines on lateral margins; genital styles narrow, the inner apical corner produced into a flattened, narrow, curved process with a rounded apex; the outer apical corner produced into a small, blunt spine, from the base arises a large, slightly crooked spine.

Length, 2.7 millimeters; tegmen, 3.3.

Female.—Unknown.

LUZON, Baguio (*Baker*).

The markings on the tegmina and the shape of the genitalia of this species are very similar to those of *T. amboinensis* Muir.

Tropidocephala pseudobaguioënsis sp. nov.

In coloration and shape and proportional size of head this species is similar to *T. baguioënsis*; the antennæ have only one fine black ring which is on the second joint.

Pygophor with a knobbed spine on medioventral edge, no spines on lateral edges, styles flattened, from inner basal edge there arises a long, curved, flattened spine, with granulated surface, on outer edge near base there arises a short, broad, flattened spine, both these basal spines stand at right angle to the surface

of style, apex slightly broadened, truncate, the inner corner developed into a long, curved spine with a rounded apex, the curve forming a semicircle.

Length, 2.5 millimeters; tegmen, 3.

Female.—Similar to male, abdomen light brown, ovipositor darker on basal half.

Length, 3.0 millimeters; tegmen, 3.5.

MINDANAO, Iligan and Davao (*Baker*).

The shape of the genital styles separates this species from *T. baguioënsis*.

Genus PUROHITA Distant

Purohita DISTANT, Fauna Brit. India, Rhyn. (1906), 3, 470.

Purohita nigripes sp. nov.

Male.—Light brown; vertex and face between eyes darker, antennæ and base of face irrorated with dark brown or black, carinæ of thorax lighter; joints of first and second tarsi and apical joint of hind tarsi black; abdomen darker brown. Tegmina hyaline, costa yellow, other veins black with the black spreading out into cells, especially on apical half, subcostal vein before cross vein and all cross veins colorless, veins with fine granules bearing black hairs. Wings hyaline with light brown veins.

Ventral edge of pygophor forming two triangular plates touching in middle, the apex of each plate forming a small tooth with a smaller tooth on the inner edge; anal segment about twice as long as broad, sides subparallel, apex truncate, anus in apical third; styles thin, subulate apices slightly curved; penis long, strongly curved, and sharply pointed at apex.

Length, 3.5 millimeters; tegmen, 4.5.

Female.—Larger, but similarly colored; ovipositor broad and flat, forming a deep keel from middle to slightly beyond apex of abdomen.

Length, 5.2 millimeters; tegmen, 7.5.

LUZON, Laguna, Los Baños (*Muir*), on bamboo.

The eggs are laid singly in lines in the stem of young bamboo and covered with a mass of waxy secretion, which is secreted by glands on the sternites beside the ovipositor and transferred from there to the bamboo by the aid of the hind tarsi. The newly hatched nymphs have the antennæ terete, the first joint broader than long, the length of second about twice its width, the arista has a comparatively large, round base with a long flagellum. The basal joint increases in length at each ecdysis, at the penultimate it is much longer than the second joint and

has a slight ridge along it, but is not flattened until the adult stage. The face has two median carinæ until the last ecdysis.

This is the first species of this genus to be taken in the Philippine Islands; others are known from Ceylon, India, southern China, and Formosa. One species from Formosa approaches the Philippine genus *Lanaphora* Muir.⁷

Genus LANAPHORA Muir

Lanaphora MUIR, Canadian Entom. (1915), 317.

Lanaphora bakeri Muir.

Lanaphora bakeri MUIR, Canadian Entom. (1915), 317.

LUZON, Laguna, Mount Maquilung (*Baker*).

Genus ARCOFACIES Muir

Arcofacies MUIR, Canadian Entom. (1915), 319.

Arcofacies fullawayi Muir.

Arcofacies fullawayi MUIR, Canadian Entom. (1915), 319.

LUZON, Manila (*Muir, Fullaway*).

DELPHACINI

Genus BRACHYCRÆRA novum

Head as wide as thorax; vertex very short, with more than twice the length; with a single median longitudinal carina; a carina dividing vertex from face; face distinctly longer than wide, slightly narrower at apex than at base, broadest just below eyes, sides arcuate, a single median carina with an indistinct minute furcation at extreme base, a diagonal carina across genæ from below antennæ to apical corner of frons; clypeus small, tricarinate, in profile in line with face, not angled; antennæ reaching nearly to apex of clypeus, first joint flattened, subtriangular, apex broader than base, second joint about double the length of first, flattened, subovate, the arista at apex; eyes with deep antennal emarginations. Pronotum short, tricarinate, lateral carinæ strongly diverging posteriorly, following hind margin of eyes, not reaching hind margin; mesonotum about as long as wide, tricarinate, lateral carinæ subparallel. Tibial spur cultrate in outline, slightly concave on both sides, with an apical tooth, but no teeth on hind edge. Tegmina long, narrow, pointed at apex, radius not touching media, first median sector touching cubitus.

This genus is near *Stobæra*, but the short, broad head and

⁷ *Purohita maculata* Muir, *This Journal*, Sec. D (1916), 11, 311.

arcuate sides of face distinguish it. With a greater knowledge of the character of the spur in other genera, it may prove that this and several allied genera are better placed in the Tropidocephalini.

Brachyceraera albolineata sp. nov.

Female.—Green or light brownish green, carinæ of head and thorax lighter; a thin transverse white line across genæ and face below eyes, antennæ brownish, ovipositor brown. Tegmina yellowish, veins slightly darker with small, similarly colored granules.

Length, 2.8 millimeters; tegmen, 3.5.

LUZON, Laguna, Mount Maquiling; Benguet, Baguio (*Baker*).

Genus PERKINSIELLA Kirkaldy

Perkinsiella KIRKALDY, Entom. (1903), 36, 179.

This genus is of economic importance in countries where sugar cane is cultivated, as the eighteen species at present known all live upon that plant, as well as on some other grasses. Fortunately several parasites are locally active in keeping down their numbers, or sugar cane could not be grown over the region of their distribution, for a single species (*P. saccharicida*) introduced into the Hawaiian Islands threatened to ruin the sugar industry there until parasites were introduced to hold it in check. Six species are known in the Philippine Islands and can be distinguished by the following characters:

Key to the Philippine species of Perkinsiella.

- a*¹. Basal half of face distinctly darker than apical half.
 - b*¹. Granules on tegmina light in color, very small..... *lineata*.
 - b*². Granules on tegmina dark.
 - c*¹. Posterior half of tegmen dark fuscous..... *saccharivora*.
 - c*². Dark pattern on tegmen confined to apical cells..... *pseudosinensis*.
- a*². Basal and apical halves of face concolorous; a few light spots on face.
 - b*¹. Median portion of pro- and mesonotum distinctly lighter than lateral portions *bakeri*.
 - b*². Median portion of pro- and mesonotum not distinctly lighter than lateral portions.
 - c*¹. Tegmina light fuscous brown, granules on veins dark brown, large. *fuscipennis*.
 - c*². Tegmina not fuscous; granules on veins very minute, light. *vastatrix*.

Perkinsiella vastatrix (Breddin).

Dicranotropis vastatrix BREDDIN, Deutsch. Ent. Zeitschr. (1896), 107.

Common on sugar cane. Philippine specimens agree in coloration with specimens from Java.

Perkinsiella bakeri sp. nov.

Male.—Macropterous form; structure typical. Vertex and face brown, lighter spots coalescing and forming small bands across face, clypeus and antennæ darker brown; pro- and mesonotum light in middle, dark brown outside of lateral carinæ; rest of thorax, coxæ, femora, and abdomen dark brown; tibiæ and tarsi light brown, spur on hind tibiæ dark brown on outer side. Tegmina hyaline, fuscous brown, lighter over basal half, dark over apical half, especially distad of clavus; a triangular, lighter mark at end of costal cell and a smaller spot at apex of each apical cell, a small dark spot at apex of claval margin, rest of claval margin white or yellowish white; veins closely studded with black granules; wings hyaline, veins dark.

Pygophor slightly compressed laterally, ventral edge medially produced into a small plate which is bifid at apex; at each side of base of plate the pygophor is slightly depressed; anal segment with a long, thin, inwardly curved spine from each ventral corner, spines reaching across pygophor; genital styles small, basal portion spindle-shaped, slightly flattened, apex drawn to a point, which is at right angles to basal portion.

Length, 2.7 millimeters; tegmen, 4.

Female.—Macropterous form, similar to male. Brachypterous form: Heavier in build than the male, especially the abdomen, also lighter in color; tegmina reaching about one fourth from apex of abdomen, hyaline, veins with brown granules, margin of clavus whitish with dark mark at apex; wings rudimentary.

Length, 4 millimeters; tegmen, 4.5.

This species is near *P. amboinensis*, but the genitalia are very distinct; it can easily be distinguished also by the dark lateral margins of pro- and mesonotum.

LUZON, Laguna, Los Baños (*Baker, Muir*), on sugar cane and sorghum.

Perkinsiella saccharivora sp. nov.

Male.—Macropterous form; structure typical. Antennæ, clypeus, and frons between eyes dark brown, frons below eyes, genæ below antennæ, and a few small spots between eyes light brown or yellowish; two small dark spots occur at apex of frons; vertex and median portion of pro- and mesonotum light brown or yellow, lateral portions dark brown; front and middle coxæ, front femora, a ring around front tibiæ, and the front tarsi dark brown, spur slightly darker along edge; abdomen dark brown. Tegmina hyaline, all anterior of media colorless, all

posterior, including clavus, light brown, veins with small brown granules, hyaline spots in apical cells, hind margin of clavus yellowish white; wings hyaline with brown veins.

Ventral edge of pygophor bearing in middle two large spines, contiguous at base, diverging distally and reaching to anal segment; anal segment with a spine projecting from each ventral corner, the spines curving forward; styles narrow, reaching to anal segment, basal portion slightly flattened, apical portion flattened in the opposite plane, the apex pointed and curved inwardly, making nearly a complete spiral.

Length, 2.8 millimeters; tegmen, 4.3.

Female.—Macropterous form, similar to the male.

Length, 3.2 millimeters; tegmen, 4.6.

LUZON, Laguna, Los Baños (*Muir*).

This species is near to *P. bicoloris* Muir (New Guinea) of which only the female is known. It approaches *P. sinensis* Muir (China and Japan) in its genitalia.

Perkinsiella lineata sp. nov.

Male.—Macropterous form: Vertex, frons between eyes, antennæ, and clypeus light brown, frons below eyes and genæ light yellow, apex of first antennal joint dark, pro- and mesonotum light brown, lateral margins darker; legs light brown, front and middle legs with dark mark on coxæ, a fine longitudinal line on femora, a small dark band on tibiæ and tarsi. Tegmina hyaline, clavus fuscous with white hind margin, a light brown mark down middle from base to apex; veins with small brown granules, a small brown spot at apex of each vein.

Medioventral edge of pygophor produced into two very small, straight spines; anal spines strong, diverging, reaching about halfway across pygophor; styles broad and rounded at base, apically produced into sharp, curved spines, a small spine from upper portion of broad base.

Length, 2.8 millimeters; tegmen, 4.8.

Female.—Similar to the male.

Length, 3.5 millimeters; tegmen, 5.6.

LUZON, Laguna, Los Baños (*Muir*), on sugar cane. PALAWAN, Puerto Princesa (*Baker*).

Perkinsiella fuscipennis sp. nov.

Male.—Head, thorax, and legs light brown; small light dots on face, coxæ, and longitudinal marks on femora and tibiæ dark brown; abdomen dark brown, lighter at base. Tegmina fuscous brown, darker over the three posterior apical cells with a light dot in apex of each, a dark mark on hind margin at end of claval

vein; veins light with large brown granules; hind wings fuscous with dark veins.

Pygophor about as deep as wide, a pair of very small, flattened spines on the medioventral edge; anal spines large, slightly flattened, diverging and slightly curved; styles broadest at base, narrowing to apex where they are produced into small bifurcations.

Length, 2.7 millimeters; tegmen, 4.2.

Female.—Unknown.

MINDANAO, Davao (*Baker*).

This is a Philippine representative of the Australian *P. graminicida* Kirkaldy; there is little difference in the genitalia, but the concolorous face and the greater expanse of the fuscous area on the tegmina distinguish it.

Perkinsiella pseudosinensis sp. nov.

Male.—Face between eyes, clypeus, front coxæ, pleura, and abdomen dark brown; face beyond eyes, genæ, antennæ, and legs yellow or light brown; apex of first joint and sense organs of second joint of antennæ dark; vertex and nota brown with lighter carinæ. Tegmina hyaline, veins light, granules brown, a fuscous spot at end of claval vein fuscous from cross veins over sixth and in apical portion of sixth and seventh apical cells; wings hyaline, veins brown.

Medioventral spines of pygophor flattened, broad, cultrate in outline, and spines subulate, slightly diverging and curved, genital styles quadrate at base, the outer, upper corner produced and continued in a bifurcate process, the inner furcation flattened, curved into a semicircle, apex rounded, the outer furcation short, flattened, curved, the two together forming three fourths of a circle.

Length, 2.5 millimeters; tegmen, 3.7.

Female.—Similar to the male.

Length, 3 millimeters; tegmen, 4.

MINDANAO, Davao, Iligan (*Baker*).

This species is superficially very similar to *P. sinensis* Kirkaldy, but the genitalia are very different.

Genus STENOCRANUS Fieber

Stenocranus FIEBER, Verh. Zool. Bot. Ges. Wien (1866), 16, 519.

Stenocranus agamopsyche Kirkaldy.

Stenocranus agamopsyche KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1906), No. 2, 409.

Previously recorded from Queensland on grasses and sedges.

LUZON, Laguna, Los Baños (*Muir, Baker*), on sugar cane and grasses.

Stenocranus pacificus Kirk.

Stenocranus pacificus KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 3, 139.

Previously recorded from Fiji on sugar cane and grasses. The anal spines are blunter than in the type.

LUZON, Laguna, Los Baños (*Baker, Muir*), on grasses.

Stenocranus pseudopacificus sp. nov.

Male.—Apex of vertex slightly broader, lateral carinæ on pronotum outwardly curved posteriorly, but reaching hind margin; otherwise similar in build and coloration to *S. pacificus*, except in the genitalia.

Pygophor longer than broad, medioventral edge slightly emarginate; lateral edges cut off square at middle, the dorsal half cut back to base of anal segment, at the angle on each side a pair of short, flat spines with wide bases; anal segment large, the ventrolateral corners being produced into large spines, the left one flattish, curved, with rounded apex, the right one flattish, curved, then bent back to ventral surface of anal segment in the form of a wide thin plate; genital styles wide and flattened at base, thinning off to a pointed apex which is curved outward, from the wide base a wide, curved spine arises, reaching about one third from base in front. The genitalia are very distinct.

Female.—Unknown.

Length, 2.2 millimeters; tegmen, 3.4.

LUZON, Benguet, Baguio (*Baker*).

Genus *SARDIA* Melichar

Sardia MELICHAR, *Hom. Ceylon* (1903), 96.

Hadeodelphax KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 1, 410.

Sardia pluto (Kirkaldy).

Hadeodelphax pluto KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 1, 410.

MINDANAO, Davao and Butuan (*Baker*).

Previously known from Queensland and Fiji. It has been suggested that this species is a synonym of *S. rostrata* Melichar

from India, Ceylon, Java (?), and the Malay Peninsula (?). Only a comparison of the male genitalia will decide this point.

Genus *PHYLLODINUS* Van Duzee

Phyllodinus VAN DUZEE, Bull. Buffalo Soc. Nat. Sci. (1898), 5, 240.

I am not sure of the distinctions between this genus and *Platybrachus*.⁸

Phyllodinus luzonensis sp. nov.

Male.—Fore and middle tibiæ broad and thin, femora flattened, but not distinctly widened. Brown; carinæ on head and thorax lighter, small light brown spots on base of face, lateral edges of pro- and mesonotum darker, abdomen dark brown, pygophor lighter; front and middle tibiæ and tarsi dark brown, hind tibiæ with a fine longitudinal mark. Tegmina hyaline, slightly fuscous, veins whitish; small brown granules scattered irregularly over surface, apical portion black or dark brown. Tibial spur broad, lamellate, with numerous small teeth on hind edge.

Pygophor short, broad, medioventral edge produced into two flat, short processes with rounded apices; a little laterad of these the edge produced into small processes with round points; anal segment very short; styles not quite reaching to anal segment, gradually tapering to point at apex, apex curved and recurved.

Length, 3 millimeters; tegmen, 2.

The female I associate with this species has the fore and second tibiæ less dilated and lighter in color and the granules on tegmina more regular on the veins.

LUZON, Laguna, Los Baños and Mount Maquiling (*Baker*).

Genus *EUMETOPINA* Breddin

Eumetopina BREDDIN, Deutch. Ent. Zeitschr. (1896), 109.

Eumetopina flavipes Muir.

Eumetopina flavipes MUIR, Proc. Hawaiian Ent. Soc. (1913), 5, 248.

Originally described from western Borneo and from Papua. Philippine specimens differ in having the light edge of pronotum obscure.

⁸ *Platybrachus* is preoccupied (Stål, Hemiptera), but until I am sure of the distinction between the two genera, it is better not to propose a substitute.

LUZON, Tayabas, Mount Banahao (*Muir, Baker*), on sugar cane; Laguna, Los Baños (*Baker*).

Genus **MEGAMELUS** Fieber

Megamelus FIEBER, Verh. Zool. Bot. Ges. Wien (1866), 519.

Megamelus proserpina Kirk.

Megamelus proserpina KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 3, 147.

Previously known from Fiji. Now found to occur in the Philippines on Mount Maquiling.

Genus **PEREGRINUS** Kirkaldy

Peregrinus KIRKALDY, Entomologist (1904), 37, 175.

Peregrinus maidis (Ashmead).

Delphax maidis ASHMEAD, Psyche (1890), 323.

Dicranotropis maidis VAN DUZEE, Bull. Buffalo Nat. Hist. Soc. (1897), 5, 240.

Pundaluoya simplicia DISTANT, Fauna Brit. India, Rhyn. (1906), 3, 468, fig. 255.

LUZON, Laguna, Los Baños (*Baker, Muir, Osborn*).

Throughout the year on maize and grasses. Also known from most parts of the Oriental and Malay Regions; Australia; Fiji; Hawaii; North, Central, and South America; the West Indies; and East Africa.

This is one of the commonest leaf hoppers at Los Baños. The eggs are parasitized by a mymarid (*Paranagrus* sp.); otherwise it might be a very serious pest on maize.

Distant, while considering the Hawaiian form specifically the same as the Indian, questions it being the same as Ashmead's type. I have not had an opportunity to examine the type, but specimens from North America that I have examined are specifically the same as the Hawaiian. Crawford, who had specimens from Hawaii, North and South America, and the West Indies, considered them the same species.

Although I have not seen specimens of *Pundaluoya ernesti* Kirby, the description and figure given in The Fauna of British India deter me from placing it in the same genus as *maidis*. The vertex is considerably broader than long, the basal joint of antenna is very short, the lateral edges of the pronotum are described as being marginally strongly carinate—characters that do not fit *P. maidis*; the tegmen also is distinct. For these reasons I retain the two genera as distinct.

Genus **DICRANOTROPIS** Fieber

Dicranotropis FIEBER, Verh. Zool. Bot. Ges. Wien (1866), 16, 521.

Dicranotropis koebelei (Kirk.).

Phacalastor koebelei KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1906), No. 1, 408.

LUZON, Laguna, Los Baños (*Baker, Muir*). Previously recorded from Queensland, Fiji, and Java. Perhaps India and Ceylon.⁹

Genus **LIBURNIA** Stål**Liburnia puella** Van Duzee (?).

Liburnia puella VAN DUZEE, Bull. Buffalo Soc. Nat. Sci. (1898), 5.

LUZON, Laguna, Los Baños (*Baker*). Previously known from North America, Queensland, and Fiji.

There is a slight difference in the genitalia from the figure given by Kirkaldy.

Genus **DELPHAX** Fabricius

Under this inclusive name Kirkaldy¹⁰ described a number of species from Australia and Fiji. At a later date I hope to place Kirkaldy's species in their proper genera. The following I find among the Philippine species:

Delphax kolophon Kirkaldy.

LUZON, Laguna, Los Baños and Mount Maquiling (*Baker*).

Delphax eupompe Kirkaldy.

LUZON, Benguet, Baguio (*Baker*). Previously known from Australia and Fiji.

Delphax albicollis Motsch.

LUZON, Laguna, Los Baños (*Baker, Muir*). Previously known from Ceylon and Java.

Delphax anemonias Kirkaldy.

LUZON, Laguna, Mount Maquiling; Benguet, Baguio (*Baker*). Previously known from Queensland.

⁹ *Pundaluoya pulchella* Distant [Ann. & Mag. Nat. Hist. (1912), IX, 8, 190, and Fauna Brit. India, Rhyn. (1916), 6, 135], I believe, is this species.

¹⁰ Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 3, 149.

MELASIDÆ (COLÉOPTÈRES) DES ILES PHILIPPINES RÉCOLTÉS
PAR C. F. BAKER

Par ED. FLEUTIAUX
(Nogent-sur-Marne, France)

J'ai déjà eu l'occasion de signaler les Elateridæ récoltés aux îles Philippines par M. le Professeur Charles Fuller Baker¹ et j'ai aujourd'hui le plaisir de publier la liste des Melasidæ qu'il a bien voulu également m'envoyer. Si le nombre des espèces des Elateridæ de cette provenance déjà décrites antérieurement est assez important, il n'en est pas de même pour les Melasidæ. On est étonné en effet du peu d'espèces jusqu'à présent connues, ce qui explique la quantité relativement grande d'espèces nouvelles créés ci-après.

Genus SUBPROTELATER novum

Corps étroit, parallèle. Tête assez convexe. Epistome très court, transversal, presque nul, non rétréci à la base, ne continuant pas la courbure du front et placé sur un plan inférieur. Labre très apparent, arrondi en avant. Mandibules saillantes. Antennes moniliformes. Pronotum très déprimé à la base, avec ses angles postérieurs aigus et carénés comme chez les Elateridæ. Sillons antennaires du propectus marginaux, étroits et profonds, bien limités en dedans par une carène, n'atteignant pas le sommet des angles postérieurs et limités en arrière au niveau du sillon fémoral. Prosternum large; saillie longue, étroite et parallèle. Sutures prosternales ouvertes en arrière pour recevoir les tarses antérieurs. Episternes parallèles. Epipleures des élytres sensiblement de la même largeur, faiblement rétrécies en arrière, bien limitées par une fine carène. Hanches postérieures non rétrécies en dehors, bord latéral plus large que les épisternes, bord inférieur sinué. Pattes courtes; tibias et tarses subcylindriques.

Forme une tribu à part près des Pterotarsini. Corps allongé parallèle, peu convexe; sillons antennaires sur le bord latéral des propleures profonds et nettement limités; sutures prosternales ouvertes en arrière pour recevoir les tarses antérieurs; tarses normaux.

Subprotelater bakeri sp. nov.

Allongé, parallèle, peu convexe; noir brillant avec des taches rouges et jaunes; pubescence blanchâtre, plus visible sur le pro-

¹ *Phil. Journ. Sci., Sec. D* (1914), 9, 441; (1916), 11, 219.

notum. Tête sillonnée au milieu, ponctuée, rougeâtre en avant. Epistome très court, transversal, déprimé dans le sens de la largeur. Antennes n'atteignant pas la base du prothorax. Pronotum beaucoup plus long que large, parallèle, rétréci seulement au sommet, sillonné au milieu, profondément et densément ponctué. Ecusson oblong, saillant, sur un plan oblique, rugueux. Elytres parallèles, arrondis au sommet, rugueux, profondément ponctués-striés, ornés de deux bandes rouges obliques partant au dessous de l'épaule et se rejoignant sur la suture au dessous de l'écusson, et de cinq petites taches jaunes: une au milieu de la base sur chaque élytre; une sur le bord externe au premier tiers; une un peu plus bas, près de la suture; une plus grande, subtransversale, au milieu, au dernier quart et une dernière étroite, allongée, sur le deuxième interstrie, avant l'extrémité. Dessous noir, peu brillant, ponctué. Sillons antennaires terminés au niveau antérieur du sillon fémoral, avant le sommet des angles postérieurs du propectus. Pattes noirâtres, avec les articulations, les tibias (plus ou moins) et les tarses ferrugineux.

Longueur, 5 millimètres.

LUZON, Laguna, Mount Maquiling.

A l'aspect des *Protelater* de Nouvelle-Zélande, notamment de *P. guttatus* Sharp.

Dromæolus indicus Bonvouloir.

Ann. Soc. Ent. France (1871), 230, Pl. 10, fig. 2.

PALAWAN, Puerto Princesa.

Décrit de Singapour. J'en possède un exemplaire de Martapura, Bornéo.

Dromæolus congener Bonvouloir.

Ann. Soc. Ent. France (1871), 213, Pl. 8, fig. 9; FLEUTIAUX, Ann. Mus. Civ. Genova (1896), 534.

LUZON, Tayabas, Mont Banahao.

Décrit de Sarawak; je l'ai vu aussi de Birmanie.

Dromæolus opacus Bonvouloir.

Ann. Soc. Ent. France (1871), 228, Pl. 9, fig. 8.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.

Décrit de Celebes. Je l'ai vu de Java dans la collection du Musée de Leyde.² J'ai rapporté avec doute à cette espèce un exemplaire de Nouvelle-Guinée du Musée de Gènes.³

² Notes Leyden Mus. (1896), 18, 143.

³ Ann. Mus. Civ. Genova (1896), 566.

Dromæolus subopacus sp. nov.

Oblong, peu convexe; brun noirâtre, pubescence jaune plus dense sur la base du pronotum et des élytres. Tête densément ponctuée; epistome rugueux, très rétréci à la base où il est plus étroit que l'espace compris entre lui et l'oeil; carène interoculaire interrompue sur la base de l'épistome. Antennes ferrugineuses, obscures à la base; 2^e et 4^e articles égaux; 3^e aussi long que les deux suivants réunis; 3^e subégal au 4^e; suivants graduellement allongés. Pronotum légèrement rétréci en avant à partir de la base, arrondi près des angles antérieurs, sillonné au milieu à la base; ponctuation nette et serrée sur le dessus, forte et rugueuse sur les côtés. Elytres atténués en arrière, ponctués, plus légèrement vers le bout, striés plus visiblement sur le dessus. Dessous de même couleur. Pattes rougeâtres avec les tarses plus clairs et les cuisses rembrunies.

Longueur, 3 à 4.5 millimètres.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao. MINDANAO, Butuan et Dapitan.

Plus petit que *D. opacus* Bonvouloir, pronotum un peu plus long, élytres plus atténués en arrière, carène interoculaire interrompue.

Dromæolus parvulus sp. nov.

Oblong, peu convexe; brun obscur; pubescence cendrée très dense sur la base du pronotum et des élytres, brune sur le reste du corps. Tête convexe, densément ponctuée; carène interoculaire interrompue au milieu; épistome très rétréci à la base où il est plus étroit que l'espace compris entre lui et l'oeil. Antennes assez longues, atteignant presque la moitié du corps; ferrugineuses, premier article obscur; 2^e plus court que le 4^e; 3^e un peu plus long que le 4^e; suivants graduellement allongés. Pronotum aussi long que large à la base, arrondi et graduellement rétréci de la base au sommet, fortement et densément ponctué, nullement sillonné à la base. Elytres rugueux à la base, ponctués en arrière, striés. Dessous de la même couleur. Pattes ferrugineuses avec les cuisses moins claires.

Longueur, 3 à 3.5 millimètres.

LUZON, Laguna, Mont Maquiling.

Voisin de *D. subopacus* Fleutiaux, de forme moins allongée, plus fortement rugueux et ponctué, pronotum plus court, élytres plus distinctement striés.

Dromæolus solitarius sp. nov.

Oblong; brun foncé, rougeâtre sur la suture; pubescence jaune.

Tête densément pontuée, partout au milieu du front une très fine et très courte carène; carène interoculaire interrompue au milieu; épistome rétréci à la base, où il est un peu plus étroit que l'espace compris entre lui et l'oeil. Antennes ferrugineux clair, dépassant notablement la base du prothorax; 2^e article subégal au 4^e; 3^e presque aussi long que les deux suivants réunis; les autres à partir du 5^e graduellement allongés; le dernier presque aussi long que les deux précédents réunis. Pronotum aussi long que large, rétréci au sommet, peu convexe, densément ponctué, plus fortement et rugueusement sur les côtés, peu déprimé à la base. Elytres atténués en arrière, rugueux, striés. Dessous d'un brun plus ou moins rougeâtre. Pattes ferrugineux clair.

Longueur, 3 millimètres.

MINDANAO, Misamis, Iligan.

Très voisin de *D. parvulus* Fleutiaux; brunâtre, pubescence jaune; pronotum plus rétréci en avant, moins bombé au milieu; élytres plus atténués en arrière.

Dromæolus minimus Fleutiaux.

Bull. Soc. Ent. France (1896), 334.

MINDANAO, Dapitan.

Décrit de Sumatra.

Ceratus nitidus sp. nov.

Allongé, ovale, noir brillant, pubescence rousse. Tête convexe, densément ponctué. Epistome rugueux, arrondi en avant, rétréci à la base, sensiblement aussi large que l'espace compris entre lui et l'oeil. Antennes brunes, dépassant la base du thorax. Pronotum aussi long que large à la base, graduellement rétréci en avant, sillonné au milieu à la base, densément ponctué. Ecusson oblong, finement pointillé. Elytres graduellement rétréci en arrière, finement pointillés, ne portant qu'une strie suturale. Dessous de même couleur, pubescence jaune, finement ponctué. Pattes rougeâtres.

Longueur, 8 millimètres.

LUZON, Tayabas, Mont Banahao.

Voisin de *C. frontalis* et *C. sumatrensis* Fleutiaux; d'un noir brillant, front non caréné.

Ceratus bakeri sp. nov.

Ovale, peu convexe; noir à peine brillant, pubescence roussâtre. Tête convexe, densément ponctué; carène interoculaire interrompue sur la base de l'épistome; ce dernier rétréci à la base, un peu plus étroit que l'espace compris entre lui et l'oeil, fortement

et rugueusement ponctué. Antennes ferrugineuses, dépassant la base du prothorax. Pronotum notablement rétréci en avant, déprimé le long de la base, nettement et densément ponctué, marqué de deux impressions distinctes en avant de l'écusson. Elytres rétrécis en arrière surtout au delà de la moitié, rugueux, substriés. Dessous de la même couleur. Pattes d'un brun rougeâtre ou ferrugineux.

Longueur, 5.5 à 6 millimètres.

LUZON, Tayabas, Mont Banahao. MINDANAO, Butuan.

Diffère de *C. parvulus* Fleutiaux par sa taille plus grande, sa forme moins convexe; sa couleur noire; sa ponctuation moins forte; carène interoculaire interrompue sur la base de l'épistome. Pronotum moins long, plus graduellement rétréci en avant, élytres proportionnellement plus longs.

Ceratus unicus sp. nov.

Ovale, peu convexe, noir, à peine brillant, pubescence jaune. Tête convexe, densément ponctuée; carène interoculaire entière; épistome très rétréci à la base, plus étroit que l'espace compris entre lui et l'oeil. Antennes ferrugineuses, atteignant la moitié du corps. Pronotum notablement rétréci en avant, arrondi sur les côtés, déprimé le long de la base, nettement et densément ponctué, rugueux sur les côtés; angles postérieurs aigus, très légèrement divergents au sommet. Elytres atténués en arrière, assez fortement rugueux, distinctement striés. Dessous de la même couleur. Pattes brunâtres, devenant en partie ferrugineuses.

Longueur, 4.5 millimètres.

LUZON, Tayabas, Mont Banahao.

Diffère de *C. parvulus* Fleutiaux par sa forme plus allongée et moins convexe, sa couleur noire, son pronotum relativement plus court et plus graduellement rétréci de la base au sommet, ses élytres proportionnellement plus longs.

Fornax cribricollis sp. nov.

Allongé, convexe, atténué en arrière dans le dernier tiers seulement; noir mat; pubescence jaune plus apparente sur la base du pronotum et des élytres. Tête convexe, très densément ponctuée; épistome rugueux, rétréci à la base où il est aussi large que l'espace compris entre lui et l'oeil. Antennes ferrugineuses obscures; 2^e article petit; 3^e et 4^e deux fois plus longs et sensiblement égaux. Pronotum parallèle dans la première moitié, rétréci en avant, nettement et densément ponctué. Elytres ponctués, plus légèrement en arrière, striés plus distinctement

à la base et sur le dessus. Dessous de même couleur. Pattes brunâtres passant au jaune plus ou moins clair.

Longueur, 4 à 5 millimètres.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.

Voisin de *F. subquadratus* Bonvouloir; pronotum plus court, nullement sillonné au milieu à la base.

Fornax fusiformis sp. nov.

Allongé, étroit, convexe, atténué en avant et en arrière; noir; pubescence jaune sur la première moitié du corps, brune en arrière. Tête convexe, densément et rugueusement ponctuée, carénée au milieu; épistome fortement rugueux, rétréci à la base, où il est un peu plus étroit que l'espace compris entre lui et l'oeil. Antennes épaissies vers le bout, ferrugineuses, obscures au milieu. Pronotum un peu plus long que large, graduellement et faiblement rétréci en avant, à ponctuation grosse et rugueuse surtout en arrière, avec une petite ligne lisse au milieu en avant de l'écusson. Elytres graduellement et notablement atténués en arrière, rugueux à la base, pointillés en arrière; stries distinctes à la base et au milieu, effacées en arrière sur les côtés. Dessous de même couleur. Pattes rougeâtres avec les cuisses noirâtres.

Longueur, 4.25 millimètres.

LUZON, Tayabas, Mont Banahao.

Voisin de *F. cribricollis* Fleutiaux; de forme étroite, graduellement atténuée aux deux extrémités, front caréné.

Fornax denticornis sp. nov.

Allongé, convexe; noir mat, pubescence brunâtre peu apparente. Tête convexe, densément ponctuée; carène interoculaire entière; épistome très rétréci à la base, bord antérieur arrondi, base très étroite. Antennes épaisses, dépassant la moitié du corps, brunâtres, dentées; articles 3^e et 4^e subégaux, suivants graduellement allongés. Pronotum un peu plus long que large, rétréci en avant, fortement et rugueusement ponctué, impressionné au milieu de la base. Ecusson oblong. Elytres atténués en arrière, rugueux, fortement ponctués-striés. Dessous de la même couleur. Sillons antennaires non nettement limités en dedans. Hanches postérieures fortement dilatées en dedans. Pattes brunâtres; tarses plus clairs.

Longueur, 5.75 millimètres.

LUZON, Laguna, Mont Maquiling.

Ressemble à *F. opacus* Fleutiaux, mais beaucoup plus rugueux, antennes dentées. Espèce remarquable, comme lui, par les sil-

lons antennaires non bien nettement limités, comme chez les *Plesiofornax* et les *Scython*.

Fornax nicotianæ Fleutiaux.

Ann. Soc. Ent. Belg. (1895), 162 (*Dromæolus*); Notes Leyden Mus. (1896), 18, 144.

LUZON, Tayabas, Mont Banahao.

Se trouve dans toute la région Indo-malaise.

Fornax concolor E. Blanchard.

Voy. Pôle Sud, Col. (1853), 4, 92, Pl. 6, fig. 14 (*Eucnemis*); BONVOULOIR, Ann. Soc. Ent. France (1872), 316, Pl. 13, fig. 8; FLEUTIAUX, Mém. Soc. Zool. France (1896), 283.

ater BONVOULOIR, Ann. Soc. Ent. France (1872), 312, Pl. 13, fig. 4.

MINDANAO, Butuan.

Je le possède également de Balabac, se trouve aussi communément dans toute la région Indo-malaise.

Fornax morosus Bonvouloir.

Ann. Soc. Ent. France (1872), 313, Pl. 13, fig. 6.

grouvellei FLEUTIAUX, Ann. Soc. Ent. Belg. (1895), 163 (*Dromæolus*).

niger FLEUTIAUX, Ann. Soc. Mus. Civ. Genova (1896), 577; (1899), 572.

LUZON, Tayabas, Mont Banahao.

Se trouve dans toute la région Indo-malaise.

Fornax diræoides Fleutiaux.

Ann. Soc. Ent. Belg. (1897), 252.

LUZON, Laguna, Mont Maquiling.

Décrit des Philippines (Musée de Berlin).

Je possède un petit exemplaire de 5 millimètres, de Balabac, que je rapporte à cette espèce.

Fornax philippinensis sp. nov.

Allongé, peu convexe, atténué en arrière; brun, pubescence jaune. Tête convexe, régulièrement ponctuée; carène interoculaire interrompue au milieu; épistome rugueux, rétréci à la base ou il est à peu près aussi large que l'espace compris entre lui et l'oeil. Antennes ferrugineuses, dépassant la base du prothorax; 3^e article à peine plus long que le suivant. Pronotum plus long que large à la base, subgraduellement mais faiblement atténué en avant, légèrement arrondis sur les côtés, déprimé transversalement à la base; ponctuation fine et écartée. Elytres atténués de la base à l'extrémité, finement et éparsément pointillés, indistinctement striés, strie suturale seule bien marquée. Dessous de même couleur. Saillie prosternale atténuée en arrière en pointe obtuse, déprimée au milieu. Hanches postérieures très largement dilatées et arrondies en dedans. Pattes ferrugineuses.

Longueur, 6 millimètres.

LUZON, Laguna, Mont Maquiling.

Voisin de *F. collega* Bonvouloir; pubescence unicolore, pronotum subgraduellement rétréci en avant.

Je possède un exemplaire de Balabac.

Fornax trapezicollis sp. nov.

Allongé, atténué aux deux extrémités, peu convexe; brun rougeâtre clair, pubescence jaune. Tête convexe, rugueusement ponctuée, faiblement mais distinctement carénée longitudinalement au milieu du front; carène interoculaire entière; épistome rugueux, fortement rétréci à la base où il est beaucoup plus étroit que l'espace compris entre lui et l'œil. Antennes ferrugineuses à 4^e article un peu plus long que le 2^e. Pronotum à peine plus long que large à la base, directement atténué de la base au sommet, peu convexe, déprimé à la base et marqué de deux fossettes en avant de l'écusson, finement ponctué; angles postérieurs aigus et redressés. Elytres graduellement atténués en arrière, finement pointillés, indistinctement striés, stries suturale seule bien marquée. Dessous un peu plus foncé. Saillie prosternale faiblement rétrécie en arrière et arrondie à l'extrémité. Epipleures des élytres non sillonnées. Hanches postérieures largement dilatées en dedans. Pattes ferrugineuses.

Longueur, 4.5 millimètres.

LUZON, Tayabas, Mont Banahao.

Voisin de *F. elegantulus* Bonvouloir; s'en distingue par la carène frontale, la carène interoculaire entière sur l'épistome, l'épistome plus étroit à la base.

Fornax ovatus sp. nov.

Ovalaire, très peu convexe; brun rougeâtre plus clair en arrière, pubescence jaune. Tête convexe, densément ponctuée; carène interoculaire interrompue sur la base de l'épistome; épistome très rétréci à la base où il est un peu plus étroit que l'espace compris entre lui et l'œil. Antennes dépassant la base du prothorax, ferrugineuses, plus clairs au sommet; 2^e article deux fois plus court que le 4^e; 3^e notablement plus long que le suivant. Pronotum arrondi sur les côtés, rétréci en avant, marqué vers le milieu de deux petites fossettes peu profondes; ponctuation nette et assez dense. Elytres rétrécis en arrière dans la seconde moitié, rugueux à la base, finement pointillés en arrière. Dessous brun obscur. Sillons antennaires nettement limités en dedans par une carène. Saillie prosternale graduellement atténuée en arrière et terminée en pointe. Epipleures des élytres sillonnées dans

toute leur longueur. Episternes parallèles aussi larges que les épipleures à la moitié de leur longueur. Hanches postérieures largement dilatées en dedans. Pattes ferrugineuses.

Longueur, 6 millimètres.

MINDANAO, Butuan.

Espèce remarquable par sa forme large et peu convexe et par les épipleures des élytres sillonnées dans toute leur longueur comme chez certaines espèces américaines.

Fornax cedonulli var. *bakeri* var. nov.

Fornax cedonulli HELLER, Abh. Mus. Dresden (1898), 7, No. 3, 29, Pl. 3, fig. 4. Espèce décrite de Toli-Toli, Nord Celebes.

La variété *bakeri* diffère du type par les antennes entièrement jaunes, blanchâtres au sommet, le pronotum dépourvu de tache noire médiane, la base des élytres, la suture et les bords latéraux rougeâtres.

LUZON, Tayabas, Mont Banahao.

La taille est plus grande (14 millimètres) et plus large, le pronotum plus rétréci en avant, le reflet des élytres légèrement verdâtre.

Fornax vitticollis sp. nov.

Oblong, convexe, jaune clair; pubescence noire sur presque toute la surface, jaune sur l'épistome, le devant de la tête, l'extrême base du pronotum et les angles postérieurs. Tête noire au sommet, assez fortement et densément ponctuée. Epistome à ponctuation plus forte et plus serrée, rétréci à la base où il est aussi large que l'espace compris entre lui et l'oeil. Antennes cylindriques, dépassant la base du pronotum, noirâtres à la base et devenant blanchâtres au sommet; quatrième article égal au troisième. Pronotum aussi long que large à la base, graduellement rétréci en avant, brillant jaune avec une bande noire au milieu dans toute sa longueur, élargie en avant, distinctement déprimé de chaque côté de la base, couvert d'une ponctuation fine et écartée, angles postérieurs arrondis. Ecusson noir, rétréci en arrière, tronqué au sommet, convexe et pointillé. Elytres noir brillant avec un léger reflet métallique verdâtre, ornés d'une bande transversale blanchâtre avant l'extrémité, rétrécis en arrière seulement dans le tiers postérieur, sans stries, très finement et espacément pointillés, déhiscent au sommet. Propectus jaune, ponctué. Sillons antennaires assez profonds et nettement limités en dedans. Reste du dessous d'un jaune un peu rougeâtre, pubescence jaune; ponctuation très fine et écartée sur le métasternum, plus serrée sur l'abdomen. Hanches posté-

rieures larges, anguleuses, très rétrécies en dehors. Dernier segment abdominal atténué en arrière et arrondi au sommet. Pattes rouge clair; crochets des tarses dentés.

Longueur, 9 millimètres.

LUZON; Tayabas, Mont Banahao.

Voisin de *F. cedonulli* Heller, en diffère par le sommet de la tête et la base des antennes noires, la bande du milieu du pronotum et la tache blanchâtre du sommet des élytres réduite à une bande transversale.

Balistica picipes Motschulsky.

Bull. Mosc. (1861), 1, 116, Pl. 9, fig. 7; BONVOULOIR, Ann. Soc. Ent. France (1872), 511, Pl. 29, fig. 7.

LUZON, Laguna, Mont Maquiling.

Espèce décrite de Ceylon et signalée de Nouvelle-Calédonie.*

Entomophthalmus fugax var. *rubripennis* var. nov.

Entomophthalmus fugax BONVOULOIR, Ann. Soc. Ent. France (1872), 520; FLEUTIAUX, Ann. Soc. Ent. Belg. (1899), 237 (pars). L'espèce a été décrite de Sarawak. Je l'ai vue de Sumatra (Musée de Gènes).

Elytres entièrement et uniformément rougeâtres.

LUZON, Laguna, Mont Maquiling.

Entomophthalmus bonvouloiri sp. nov.

Entomophthalmus fugax FLEUTIAUX, Ann. Soc. Ent. Belg. (1899), 237 (pars) (nec Bonvouloir).

Oblong, atténué en arrière; noir peu brillant, pubescence jaune assez serrée. Tête à ponctuation peu serrée; épistome plus fortement ponctué, légèrement rugueux, peu rétréci à la base, où il est plus large que l'espace compris entre lui et l'oeil. Antennes ferrugineuses dépassant la moitié du corps. Pronotum carré, rétréci seulement tout près des angles antérieurs, déprimé en arrière; ponctuation bien nette et peu serrée; angles postérieurs carénés. Elytres atténués en arrière, à ponctuation légèrement rugueuse, indistinctement striés; strie suturale seule bien marquée. Dessous de même couleur avec l'abdomen rougeâtre, nettement ponctué. Yeux faiblement entamés. Carène latérale inférieure du pronotum n'atteignant pas tout-à-fait le bord antérieur, bien marquée en arrière. Sillons juxtasuturales antennaires du prosternum élargis en arrière, limités en dehors dans toute leur longueur par une carène. Saillie prosternale effilée en arrière des hanches antérieures, impressionnée au milieu. Episternes nuls en avant, visibles seulement en arrière et formant un triangle allongé. Hanches postérieures dilatées

* Fauvel., *Rev. Ent.* (1904), 120.

en dedans, leur bord externe plus large que le bord inférieur des épisternes. Pattes ferrugineuses.

Longueur, 2.5 à 3.5 millimètres.

LUZON, Laguna, Mont Maquiling.

Diffère de *E. fugax* Bonvouloir par l'épistome plus large à la base, la saillie prosternale effilée en arrière et moins fortement impressionnée entre les hanches.

J'en possède un individu de Sumatra que j'ai autrefois rapporté à tort à *E. fugax* Bonvouloir.

Microrhagus bakeri sp. nov.

Oblong, convexe, légèrement atténué en arrière; brun rougeâtre, pubescence jaune. Tête convexe, densément ponctuée, très finement carénée au milieu en arrière; épistome rugueux, très rétréci à la base où il est plus étroit que l'espace compris entre lui et l'oeil. Antennes ferrugineuses, dépassant la moitié du corps chez le mâle, faiblement dentées; 2^e article très petit; 3^e un peu moins long que les deux suivants réunis; les autres graduellement allongés, atteignant la moitié du corps chez la femelle, à peine distinctement dentées; 2^e article très petit, plus court que le 4^e; 3^e aussi long que les deux suivants réunis; 4^e à 10^e subégaux; dernier aussi long que les deux précédents réunis. Pronotum aussi long que large, subparallèle, à peine sinué sur les côtés et rétréci seulement tout-à-fait en avant, densément ponctué, plus fortement sur les côtés. Elytres atténués en arrière, rugueux, indistinctement striés. Dessous de même couleur, carène supplémentaire antérieure du pronotum courte; carène inférieure dépassant le milieu en avant. Sillons juxtasuturaires antennaires du prosternum, parallèles, lisses, limités en dehors sur toute leur longueur, moins larges à la base que l'espace compris entre leur limite et la carène latérale inférieure. Episternes étroits, parallèles. Hanches postérieures fortement dilatées en dedans, leur bord externe plus large que les épisternes. Pattes ferrugineux clair.

Longueur, ♂, 4 millimètres; ♀, 4.25.

LUZON, Laguna, Mont Maquiling.

Voisin de *M. dilutus* Bonvouloir; de forme plus atténuée en arrière, d'un brun rougeâtre.

Microrhagus magnicornis sp. nov.

Allongé, très faiblement atténué en arrière; noir mat, pubescence jaunâtre. Tête convexe, très densément ponctuée; épistome ponctué comme la tête, rétréci à la base où il est à peu près aussi large que l'espace compris entre lui et l'oeil. Antennes

presque aussi longues que le corps, noires, pubescentes, articles 4^e à 7^e distinctement dentés; les suivants beaucoup moins. Pronotum aussi long que large, indistinctement rétréci en avant, brusquement arrondi près des angles antérieurs, fortement et rugueusement ponctué. Elytres atténués en arrière, rugueux, indistinctement striés. Dessous de même couleur. Saillie prosternale ferrugineuse. Carène supplémentaire antérieure du pronotum courte; carène inférieure atteignant le bord antérieur. Sillons juxtasuturales antennaires du prosternum subparallèles, limités en dehors sur toute leur longueur, un peu moins larges à la base que l'espace qui les sépare de la carène latérale. Episternes étroits, subparallèles. Hanches postérieures dilatées en dedans, leur bord externe plus large que les épisternes. Cuisses brunâtres, tibias plus clairs; tarses jaunes.

Longueur, 3.5 millimètres.

LUZON, Laguna, Mont Maquiling.

Voisin de *M. minimus* Bonvouloir, mais noir; fortement et rugueusement ponctué. Diffère de *M. bakeri* Fleutiaux par la couleur noire, la forme générale plus étroite, le pronotum fortement rugueux.

Nematodes incertus Bonvouloir.

Ann. Soc. Ent. France (1875), 674, Pl. 32, fig. 6; FLEUTIAUX, Ann. Mus. Civ. Genova (1896), 537.

PALAWAN, Puerto Princesa.

La patrie du type est inconnue; je l'ai vu de Birmanie (Musée de Gènes).

Xylobius philippinus sp. nov.

Allongé, subparallèle, convexe, noir assez brillant; pubescence jaune très rare et courte. Tête convexe densément ponctué, carénée au milieu jusque sur la base de l'épistome. Ce dernier très rétréci à la base qui est à peu près aussi large que l'espace compris entre elle et l'oeil. Antennes longues, dépassant la moitié du corps robustes, noires, opaques, pubescentes, dentées du quatrième au dixième articles. Pronotum aussi long que large, faiblement rétréci tout-à-fait au sommet, sillonné au milieu, densément ponctué. Elytres à ponctuation fine et écartée, légèrement striés. Dessous noir finement ponctué. Pattes plus ou moins rougeâtres.

Longueur, 4.5 millimètres.

NEGROS, les montagnes Cuernos.

Plus étroit que *X. orientalis* Fleutiaux, plus brillant, moins rugueux.

BEITRÄGE ZUR KENNTNIS DER GATTUNG LOBOSCELIDIA WESTWOOD (HYMENOPTERA)

VON J. J. KIEFFER

(Bitsch, Germany)

Die Gattung *Loboscelidia* wurde von Westwood¹ aufgestellt und später von Dalla-Torre in *Loboscelidiodea* umgetauft.² Westwood war der Ansicht, dass sie zweifelhaft zu den Diapriiden oder zu den Cynipiden zu stellen sei; Dalla-Torre hat sie deshalb zu den Diapriiden, Ashmead dagegen zu den Cynipiden, gestellt. Die Type, *L. rufescens* Westw., von der nur das Weibchen bekannt ist, stammt aus den Sulu Inseln und wurde, seit Westwood, nicht wieder beobachtet. Es gelang nun Herrn Professor Baker zwei neue Vertreter dieser Gattung und auch das Männchen in den Philippinen zu entdecken; dieselben unterscheiden sich von der Type wie folgt:

α¹. Kopf fast kuglig, auf der Stirne mit einem kurzen, nach vorne gerichteten Fortsatz (nach Figur zwischen den Antennen vorstehend).

L. rufescens Westw. (♀)

α². Kopf ohne Fortsatz auf der Stirne.

b¹. Subcostalis an der Radialis nicht aufhörend, sondern schräg bis in die Nähe des Vorderrandes verlängert, fast die Mitte desselben erreichend, Medialis distal von ihrer Mitte einen sehr kurzen Ast abzweigend *L. inermis* sp. nov. (♀)

b². Subcostalis an der Radialis aufhörend und das proximale Viertel des Vorderrandes kaum überragend, Medialis einfach, keinen Ast abzweigend *L. defecta* sp. nov. (♂ ♀)

Loboscelidia inermis sp. nov.

♀ : Rotbraun, glatt und glänzend. Kopf von oben gesehen quer, bis zu den Antennen allmählich bogig abfallend; von der Seite gesehen höher als lang, ventral gewölbt, dorsal stark gewölbt und mit dem vorderen Teil des Thorax, bis zum Scutellum, eine bogig gekrümmte Linie bildend. Mund auf der Ventralseite liegend, dem Hinterrande näher als dem Vorderrande. Augen kahl, fast kreisrund. Ocellen sich fast berührend, einen Bogen bildend, die lateralen um ihren Durchmesser vom Hinterrande des Kopfes entfernt, um ihren doppelten Durchmesser vom Auge entfernt. Hinter den Ocellen verlängert sich der Hinterkopf in einen länglichen, stark gewölbten, seitlich mit je

¹ Thesaurus Entomologicus Oxoniensis (1874), 171.

² Catalogus Hymenopterorum (1898), 5, 431.

1 schwarzen Leiste gerandeten Fortsatz, der bis zum Pronotum reicht; seitlich trägt dieser Fortsatz eine gelbliche, von vielen queren Falten durchzogene Lamelle, die sich auch am Hinterrande der Schläfe fortsetzt und so, mit dem Fortsatz selbst, einen halbkreisförmigen, halbierten Ring oder Hals bildet. Schläfe oben sehr schmal, nach unten allmählich erweitert. Wange kaum kürzer als das Auge. Stirn ohne Fortsatz zwischen den Antennen, diese sitzen auf einem stark queren, ausgerandeten Vorsprung am Vorderende des Kopfes. Mandibeln fast keglig, scharf zugespitzt. Palpen 4 gliedrig und kurz, 1. Glied viel dünner und kaum kürzer als das 2., dieses doppelt so lang wie dick, 3. kürzer als das 2., am Maxillarpalpus distal schräg abgestutzt, am Labialpalpus kaum länger als dick und nicht schräg abgestutzt, 4. so lang wie das 2. und 3. zusammen, spindelförmig, mit 2 kurzen distalen Borsten. Antennen 13 gliedrig, fadenförmig, kaum sichtbar pubesziert, Scapus etwas länger als das 2. und 3. Glied zusammen, von oben gesehen allmählich nach hinten verdickt, seitlich gesehen gleich dick und mit einer ventralen durchscheinenden Lamelle, diese durchlaufend und kaum weniger breit als der Scapus, 2. Glied fast quer, 3. walzenrund wie die folgenden, kaum länger als das 4., dieses doppelt so lang wie dick, 5.-13. allmählich verlängert, 13. mehr als dreimal so lang wie dick.

Pronotum fast quadratisch, kaum länger als breit, hinten mit einer schwachen, bogigen Querlinie, die ein queres, elliptisches Feld begrenzt. Mesonotum stark quer, fast halb so lang wie das Pronotum, mit 2 vorn kaum divergierenden, dicht vor dem Hinterrande aufhörenden Parapsidenfurchen, mittlerer Abschnitt so breit wie die seitlichen. Scutellum so lang wie das Mesonotum, dreieckig, ohne Gruben aber an jeder Vorderecke mit einer schrägen Linie, die je eine Axille bildet. Metanotum nicht halb so lang wie das Scutellum, einen schmalen Querstreifen bildend. Mediansegment vorn fast wagerecht, hinten fast senkrecht abfallend, der vordere Teil viel kürzer als der hintere, dieser nicht durch eine Leiste von der Metapleure getrennt. Mesopleure gewölbt. Propleure etwas eingedrückt.

Vorderflügel gross, kahl, unbewimpert, nur in der distalen Hälfte mit feinen Börstchen, ausgenommen medial und am Rande, Fläche stark glänzend, mit grossen braunen Flecken, deren 2 dunkler sind und am Vorderrande liegen, der quere proximale durchzieht die beiden Äste der Subcostalis; Adern dunkelbraun, plötzlich abgebrochen, Costalis fehlend, Subcostalis vom Vorderrande weit entfernt, fast die Mitte desselben erreichend, vor ihrem Distalende verzweigt sie sich, indem ein Ast schräg nach dem Vorderrande zieht und diesen fast erreicht, während ein

anderer, fast zweimal so lang wie der vordere, schräg nach hinten gerichtet ist und die Radialis darstellt; Medialis aus dem Grunde der Subcostalis entspringend, bogenförmig und wenig proximal von der Verzweigung der Subcostalis in diese mündend, wenig hinter ihrer Mitte zweigt sie einen sehr kurzen Ast nach hinten ab; Submedialis einfach, halb so lang wie die Medialis. Hinterflügel ohne ausgebildete Ader, mit 7 Frenalhäkchen, glashell, kahl, in der distalen Hälfte zerstreut punktiert, am Hinterrande bewimpert, viel kürzer als der Vorderflügel. Mittlere und hintere Coxa sich fast berührend, alle Femora und Tibien haben ventral eine glashelle, fast durchlaufende Lamelle, die nur am verdickten Ende der Tibia, sowie am Grunde des Femur, aufhört, Sporen gekämmt, 1, 2, 2; Metatarsus so lang wie die 3 folgenden Glieder zusammen, diese länglich, fast gleich, 5. fast so lang wie das 3. und 4. zusammen, Krallen 2 spaltig.

Abdomen so lang wie der übrige Körper, viel breiter als hoch, nach vorn allmählich verschmälert, ventral sehr schwach gewölbt, Petiolus länglich und sehr dünn, 2. Tergit fast senkrecht vom Petiolus aufsteigend, nach hinten allmählich erweitert, 3. das grösste, etwas länger als das 2., fast wagerecht, hinter ihm sind nur 2 oder 3 kleine Tergite sichtbar.

Länge, 3.5 Millimeter.

MINDANAO, Butuan (*Baker*) (3 ♀).

Loboscelidia defecta sp. nov.

♂ ♀: Von voriger zu unterscheiden durch das Geäder: Die Subcostalis überragt kaum das proximale Viertel des Flügels, an der Abzweigung der Radialis hört sie auf, so dass sie nur aus 2 Abschnitten besteht und nicht aus 3, wie bei voriger Art; die bogige Medialis ist nicht verzweigt. Das ♂ hat die Antennen 13 gliedrig und gestaltet wie beim ♀, von dem es sich durch folgende Merkmale unterscheidet: am Scapus und an den Beinen ist die durchscheinende Lamelle fast fehlend und nur spurenweise angedeutet, am Halse ist sie zwar deutlich aber weniger ausgedehnt als beim ♀, das Abdomen ist am Hinterende nach unten eingekrümmt, wie bei den ♂ der Diapriiden, was für das ♀ nicht der Fall ist.

Länge, 1.8 Millimeter.

PALAWAN, Puerto Princesa (*Baker*).

NEUE STEPHANIDÆ (HYMENOPTERA) DER PHILIPPINEN

VON J. J. KIEFFER

(Bitsch, Germany)

Genus STEPHANUS Jurine

Vier Vertreter dieser Gattung waren von den Philippinen bekannt, nämlich: *Stephanus nigricauda* Sich., *S. sulcifrons* Schlett., *S. tarsatus* Sich. und *S. unicolor* Schlett.; diesen reiht sich folgende neue Art an.

Stephanus tinctipennis sp. nov.

♂ ♀: Schwarz, glänzend. Kopf rot bis rotbraun, Mandibeln schwarz, Antennen schwarzbraun, Scapus rot, 2. Glied rotbraun, Gelenke der Beine rötlich. Schläfe und Wange glatt und glänzend. Scheitel hinter der Krone grob bogig querverunzelt, hinten bis zum Hinterrand des Kopfes dicht gerade querverunzelt, Stirn von den Antennen bis zum vorderen Zahn der Krone grob bogig querverunzelt, die 3 vorderen Zähne der Krone stark, die 2 hinteren fast, erloschen. Auge fast um seine halbe Länge vom Hinterrande des Kopfes entfernt, dieser mit einer feinen Leiste gesäumt. Maxillarpalpus sehr lang, das Hinterende der vorderen Coxa erreichend, 5 gliedrig, 1. und 2. Glied dick und fast walzenrund, das 1. doppelt so lang wie dick, das 2. fast doppelt so lang wie das 1., die 3 Glieder hinter der Biegung sind sehr dünn und, wie das 2., mit zerstreuten, langen, ventralen Haaren, 3. länger als das 1. und 2. zusammen, 4. kürzer als das 3., beide am Distalende verdickt, 5. so lang wie das 3., aber nicht verdickt. Labialpalpus klein, 4 gliedrig, davon 3 hinter der Biegung. Antennen des ♂ 37 gliedrig, Scapus doppelt so lang wie das 2. Glied, dieses wenig länglich, 3. kaum so lang wie der Scapus, dreimal so lang wie dick, viel kürzer als das 4., die folgenden allmählich dünner, 4. bis 9. gleich lang, 10. nur mehr als halb so lang wie das 9., die folgenden allmählich kürzer; jedes Flagellumglied, mit Ausnahme des letzten, hat, wie gewöhnlich bei den Stephanidæ, am Distalende einige lange, senkrecht abstehende Haare, diese etwa so lang wie die Dicke des Gliedes; Antenne des ♀ 43 gliedrig, 17 Millimeter lang, gestaltet wie beim ♂.

Thorax viermal so lang wie hoch. Prothorax fast doppelt so lang wie das Mesonotum, grob quergestreift, hinten stark erweitert, die Tegula erreichend, Hinterrand bogig ausgeschnit-

ten, der schmale, halsartige vordere Teil fast dreimal so lang wie der hintere breite Teil. Mesonotum stark quer, mit groben queren Runzeln, diese grosse, unregelmässige Punkte bildend, 3 Punktreihen deuten die 3 Längsfurchen an. Scutellum 3 lappig, anderthalbmal so lang wie das Mesonotum, medialer Lappen glatt, glänzend, an den Rändern grob punktiert, laterale Lappen grob und dicht punktiert. Metanotum eingedrückt, einen schmalen Querstreifen bildend, grob längsgerieft. Mediansegment grob netzartig gerunzelt, so lang wie Mesonotum, Scutellum und Metanotum zusammen. Metapleure und Mesopleure netzrunzlig.

Flügel schwach gebräunt, Vorderflügel mit einem grossen, braunen Fleck, der die 2 Discoidalzellen und den proximalen Teil der Cubitalzelle deckt und von da bis zum Vorderrande reicht, distal verlängert sich dieser Fleck als langer, brauner Streifen längs der Ader, die aus der hinteren Discoidalzelle entspringt, während er sich hinten, am Distalende der hinteren Discoidalzelle, mit dem Flügelhinterrand vereinigt; Costalis fehlend, Pterostigma schwarz, sehr lang und schmal, achtmal so lang wie breit, Radialis distal von der Mitte des Pterostigma entspringend, wenig vor der Flügelspitze fast im Vorderrand aufhörend, proximaler Abschnitt etwas kürzer als der distale, Basalis fast in das Distalende der Subcostalis mündend, vordere Discoidalzelle kaum kürzer als die Cubitalzelle, rautenförmig wie diese, von der 2., distal offenen Cubitalzelle durch eine sehr kurze Ader entfernt, hintere Discoidalzelle rechteckig, mehr als dreimal so lang wie breit, aus ihrem distalen hinteren Winkel eine lange, gerade Ader absendet, die an ihrem Ende plötzlich einbiegt und den Hinterrand fast erreicht.

Hinterflügel ohne deutliche Ader, nur mit einem dem Vorderrande parallelen Längsstrich im distalen Drittel und einem schrägen, den Hinterrand erreichenden und aus dem proximalen Teil des Vorderrandes entspringenden Streifen; 4 Frenalhäkchen. Beine mit langen, zerstreuten Haaren, hintere Coxa mit groben, queren Kielen, hinteres Femur mit 2 grossen Zähnen, der 1. hinter dem proximalen Drittel, der 2. vor dem distalen Drittel, zwischen denselben befinden sich 5 bis 7 kleinere Zähnen, ebenso 5 bis 7 zwischen dem 2. Zahn und dem Distalende des Femur, Stiel der hinteren Tibia etwas kürzer als die walzenrunde Keule, hinterer Tarsus beim ♂ 5 gliedrig, Metatarsus doppelt so lang wie die 4 folgenden Glieder zusammen, diese quer, das 4. an allen Tarsen ventral in 2 lange, nach vorn gerichtete, dicht behaarte Lappen verlängert, 5. Glied so lang wie die 3 vorhergehenden zusammen, Krallen einfach, Tarsen des ♀ gestaltet wie

beim ♂, ausgenommen dass der hintere Tarsus nur 3 gliedrig ist. Abdomen des ♂ 16 millimeter lang, ventral mit langen, zerstreuten Haaren, Petiolus fast halb so lang wie das ganze Abdomen, 7 Millimeter lang, grob quergestreift, ziemlich walzenrund, hinten kaum dicker, das übrige Abdomen fast gerade, glatt, 2. Segment trichterförmig, am Vorderende quergestreift; Abdomen des ♀ 20.5 Millimeter lang, der Petiolus wenig kürzer als die Keule, 9.5 Millimeter lang, Bohrer 37 Millimeter lang, Klappen mit grossem, gelbem, distalem Ring, dieser zweimal so lang wie das schwarze Distalende, 6 Millimeter lang.

Länge, ♂ 22 bis 26 Millimeter; ♀ 31.

PALAWAN, Puerto Princesa (C. F. Baker).

Stephanus tinctipennis var. *rubripes* var. nov.

♂ ♀: Schwarz; Kopf, Scapus und Beine rot, Coxa, Trochantere und Femur des Hinterbeines schwarzbraun; beim ♂ sind the Beine schwarz, alle Tarsen und die 4 vorderen Tibien rotbraun. Mesothorax und Metathorax beim ♀ rotbraun angehaucht. Am braunen Fleck des Vorderflügels fehlt beim ♀ der Streifen längs der hinteren Ader.

Länge, ♂ 20 Millimeter; ♀ 25.

MINDANAO, Dapitan (Baker).

Stephanus tinctipennis var. *atriceps* var. nov.

Von der Type durch folgende Merkmale zu unterscheiden: Kopf schwarz, wie der übrige Körper, Wange und Grund der Mandibel lehmgelb, Scapus dunkel rotbraun, Beine rot, Coxæ und am Hinterbein das Femur schwarz. Scheitel von der hinteren Ocelle bis zum Hinterrande des Kopfes, lateral von den bogigen Querrunzeln, mit sehr groben Punkten. Die 4 Flügel fast gleichmässig gebräunt, hintere Discoidalzelle kaum dunkler. Gelber Ring der Klappen 3.5 Millimeter lang, nicht doppelt so lang wie das schwarze Distalende, dieses 2.8 Millimeter lang.

Länge, 20 Millimeter; Bohrer, 23; Petiolus, 6.5; Keule, 6.5.

MINDANAO, Dapitan (Baker).

Genus PARASTEPHANELLUS Enderlein

Die erste in den Philippinen beobachtete Art ist folgende:

Parastephanellus polychromus sp. nov.

♂ ♀ Schwarz; Kopf ventral beim ♀ hellbraun, beim ♂ rotbraun, Stirn von dem vorderen Zahn der Krone bis zu den Antennen und ein Querstreifen zwischen den 2 hinteren Ocellen rot, Mandibel, ausgenommen das Distalende, Wange und Schläfe oder ein Streifen längs des Hinterrandes der Augen gelb, Antennen braun bis schwarzbraun, 1. und 2. Glied beim ♀ oder

die 4 bis 6 ersten beim ♂ rot, Tarsen, ausgenommen das Endglied, braun, hinterer Metatarsus und Grund des mittleren Metatarsus weiss. Kopf glatt und glänzend. Scheitel fein quergestreift von den hinteren Ocellen bis wenig hinter den Augen. Stirn bogig quergestreift von dem vorderen Zahn bis zu den Antennen. Auge um seine zwei Drittel vom Hinterrande des Kopfes entfernt, dieser bogig ausgeschnitten und leistenartig erhöht. Antennen beim ♀ 30 gliedrig, 6 millimeter lang, 1. Glied etwas kürzer als das 3., 2. wenig länglich, 4. viel länger als das 3., kürzer als das 5., 5. bis 9. ziemlich gleich, die folgenden allmählich verkürzt, 9. doppelt so lang wie das 10., vorletztes doppelt so lang wie dick; Antenne des ♂ ebenfalls 30 gliedrig und gestaltet wie beim ♀.

Thorax drei- bis viermal so lang wie hoch, Pronotum kaum länger als das Mesonotum, fast so breit wie lang, glatt und glänzend, vorderer schmaler Teil nicht länger als der hintere. Mesonotum fast glatt, mit den 3 gewöhnlichen Längsfurchen. Scutellum länger als das Mesonotum, 3 lappig, fast glatt oder kaum merklich lederartig. Mediansegment matt, lederartig, mit groben und ziemlich dichten Punkten. Metapleure glänzend, grob und dicht punktiert, Mesopleure glänzend, fein lederartig, mit einigen zerstreuten Punkten.

Flügel glashell, kahl, Pterostigma acht- bis zehnmal so lang wie breit, linealisch, distal zugespitzt, schwarzbraun, Radialis den Vorderrand fast erreichend, distaler Abschnitt dreimal so lang wie der proximale, Cubitalzelle zweimal so lang und zweimal so breit wie die Discoidalzelle, diese rautenförmig und durch eine sehr kurze Ader von der Medialzelle getrennt, von der 2. Cubitalzelle um ihre halbe Länge getrennt, Cubitalis dem Distalende des Pterostigma gegenüber aufhörend, hintere Discoidalzelle hinten offen, distal ohne verlängerte Ader; Hinterflügel gewimpert, ohne Ader, mit Frenalhäkchen. Beine kahl, vordere Tibia pubesziert, am Hinterbein ist die Coxa fein quergestreift, so lang wie das Femur, walzenrund, Femur mit 2 Zähnen, der proximale in der Mitte, ausserdem mit kleinen Zähnen zwischen dem Grunde und dem 1. Zahn, zwischen den beiden Zähnen sowie zwischen dem 2. Zahn und dem Distalende des Femur, Stiel der Tibia länger als die Keule, Tarsus 5 gliedrig beim ♂, 3 gliedrig beim ♀ und gestaltet wie gewöhnlich. Petiolus quergestreift, kahl wie die Keule des Abdomen, beim ♂ 3.5 Millimeter lang, Keule spindelförmig, 3 Millimeter lang, Petiolus des ♀ 3 Millimeter lang, Keule gerade, 2 Millimeter lang, Bohrer 11 Millimeter lang, Klappen einfarbig schwarzbraun.

Länge, ♂ 10.5 Millimeter; ♀ 10.

MINDANAO, Lanao, Iligan (*Baker*).

Parastephanellus polychromus var. coriacea var. nov.

♂ : Schwarz; Kopf gefärbt wie bei der Type; Antennen rot, vom 4. Gliede ab allmählich dunkler bis schwarzbraun, Ventralseite des Prothorax und die 4 vorderen Beine rotbraun, ausgenommen die mittlere Coxa, am Hinterbein ist der Grund des Femur rot, der Metatarsus schmutzigweiss, die 4 folgenden Glieder rostfarbig. Die 3 Endglieder des Maxillarpalpus allmählich kürzer. Antenne 28 gliedrig. Thorax dorsal fein lederartig, Mediansegment seitlich mit Spuren von sehr seichten Punkten. Pterostigma nur fünf- bis sechsmal so lang wie breit, nicht zugespitzt. Hinteres Femur ohne Zähnchen zwischen dem Proximalende und dem 1. Zahn. Petiolus 3 Millimeter lang, Keule des Abdomen 2 Millimeter lang.

Länge, 8.5 Millimeter.

PALAWAN, Puerto Princesa (Baker).

Genus DIASTEPHANUS Enderlein

Für die Philippinen war *D. pallescens* Schlett. bekannt; die 3 folgenden Arten sind noch hinzuzufügen:

- α^1 . Hinteres Femur mit 2 grossen Zähnen und mehreren kleinen, Pterostigma braun *D. albidens* sp. nov.
 α^2 . Hinteres Femur mit 3 grossen Zähnen, ohne kleinere Zähnchen, Pterostigma blassgelb.
 b^1 . Kopf rotbraun, zum Teil gelb, Basalis kaum länger als ihr Abstand vom Pterostigma *D. flavifrons* sp. nov.
 b^2 . Kopf schwarz, zum Teil weiss, Basalis zweimal so lang wie ihr Abstand vom Pterostigma *D. leucostictus* sp. nov.

Diastephanus albidens sp. nov.

♀ : Schwarz; Kopf rot, ventral und auf den Wangen heller, die 4 vorderen Glieder der Antennen rot, die folgenden allmählich dunkler, die 4 vorderen Beine rot, Dorsalseite des Femur und die 2 distalen Glieder des Tarsus schwarzbraun, Metatarsus an allen Beinen weisslich, Hypopygium und je ein lateraler, kreisrunder Fleck auf dem 3. Tergit gelb. Kopf glatt und glänzend, vom Hinterrand bis zu den Ocellen quergerunzelt. Stirn mit queren, bogigen Streifen. Auge fast viermal so lang wie sein Abstand vom Hinterrand des Kopfes, dieser durch eine Leiste gerandet. Vorderer Zahn der Krone viel kleiner als die übrigen. Antennen 30 gliedrig, 3. Glied kaum länger als das 2., 4. fast doppelt so lang wie das 3., deutlich kürzer als das 5., 5. bis 9. ziemlich gleich.

Prothorax sehr lang, vorderer halsartiger Teil viermal so lang wie der breite hintere, sehr fein quergestreift. Mesonotum ein Viertel so lang wie das Pronotum, glatt in der vorderen Hälfte, runzlig in der hinteren, mit den 3 gewöhnlichen Längsfurchen.

Scutellum fast glatt, mit einigen zerstreuten Punkten. Mediansegment mit dichten und sehr groben Punkten, von einer medialen Längsfurche durchzogen, längs dieser Furche unpunktiert. Metapleure netzartig gerunzelt, Mesopleure sehr fein punktiert, oben glatt.

Flügel glashell und kahl, Adern schwarz, Pterostigma braun mit schwarzen Rändern, linealisch, anderthalbmal so lang wie die Basalis, Radialis aus dem distalen Fünftel des Pterostigma entspringend, winklig, distaler Teil um die Hälfte länger als der proximale, um zwei Drittel seiner Länge von der Flügelspitze entfernt, Basalis schräg, in das Distalende der Subcostalis mündend, zwei und einhalbmal so lang wie der Nervulus; Hinterflügel ohne Ader, mit 3 Frenalhäkchen. Hintere Coxa dicht quergestreift, hinteres Femur mit 2 weissen, glänzenden Zähnen, proximaler Zahn distal vom 1. Drittel des Femur, der distale hinter dem 2. Drittel, zwischen beiden Zähnen befinden sich 3 sehr kleine Zähnchen, hinter dem distalen Zahn liegt 1 kleines Zähnchen, hintere Tibia länger als das Femur, Stiel länger als die Keule, Tarsus 3 gliedrig, gestaltet wie gewöhnlich. Petiolus quergestreift, 2.5 Millimeter lang, Keule des Abdomen allmählich verdickt, 3.5 Millimeter lang, Bohrer 9 Millimeter lang, Klappen mit einem grossen, gelblichweissen Ring wenig vor dem Hinterende.

Länge, 11 Millimeter.

LUZON, Laguna, Mount Maquiling (*Baker*).

Diastephanus flavifrons sp. nov.

♂ : Schwarz; Kopf rotbraun, von den Ocellen bis zum Munde und auf den Wangen gelb wie die Palpen, die 4 proximalen Glieder der Antennen rötlichgelb, die 4 vorderen Beine lehm-gelb, Hinterbein schwarzbraun, 1. und 2. Tarsenglied weiss, Abdomen schwarzbraun bis schwarz, mit je einem dunkelroten lateralen Fleck auf dem 2., und oftmals noch auf dem 3., Tergit, die grossen Genitalien bräunlich. Kopf matt und lederartig, Stirn kaum quergestreift, Schläfe glatt und glänzend. Scapus kaum länger als das 2. Glied, dieses anderthalbmal so lang wie dick, 3. so lang wie der Scapus, kürzer als das 4., 5. bis 9. etwa gleich lang. Prothorax lang, vorderer Teil doppelt so lang wie der hintere, sehr fein und wenig deutlich quergestreift.

Thorax dorsal fast glatt, glänzend. Mesonotum halb so lang wie der Prothorax, nur die mediale Längsfurche deutlich. Scutellum mit grossem Mittellappen. Mediansegment matt, lederartig, mit Spuren von grossen, sehr seichten Punkten.

Flügel glashell oder weisslich, Pterostigma sehr blassgelblich, mit dunkleren Rändern, sechsmal so lang wie breit, Radialis aus dem distalen Drittel des Pterostigma entspringend, stark winklig, distaler Teil zwei und einhalbmal so lang wie der proximale, Basalis fast um ihre Länge vom Pterostigma entfernt, alle Adern gelb. Hintere Coxa sehr fein quergestreift, hinteres Femur mit 3 weissen glänzenden Zähnen, diese gleichweit voneinander entfernt; weisse, dicke Borsten, so lang wie die Zähne, sind zu 4 gereiht zwischen dem 2. und dem 3. Zahn, zu 5 zwischen dem 3. Zahn und dem Distalende des Femur, Stiel der Tibia deutlich kürzer als die Keule, Tarsus 5 gliedrig. Petiolus deutlich kürzer als die Keule des Abdomen, sehr fein quergestreift, Keule fast gerade, im letzten Viertel kaum bogig, allmählich verdickt.

Länge, 6 Millimeter (2 ♂).

LUZON, Laguna, Los Baños (*Baker*).

Diastephanus leucostictus sp. nov.

♂ ♀: Schwarz; eine breite Querbinde am Vorderrande der Stirne, Gesicht, Mandibeln, ausgenommen die Spitze, Wange und breiter Streifen auf der Schläfe weiss, die 4 proximalen Glieder der Antennen dunkel rotbraun, die 4 vorderen Beine rotbraun, Dorsalseite des Femur schwarzbraun, die 3 proximalen Glieder des hinteren Tarsus rostfarbig, 2. Tergit hinter der Mitte, mit je 1 weissen Fleck, Genitalien des ♂ rostfarbig. Kopf grob lederartig, mit groben Querrunzeln zwischen den 2 hinteren Ocellen, Gesicht, Wange und Schläfe glatt. Palpen weiss, die 3 Endglieder rostfarbig und allmählich verkürzt. Scapus kaum doppelt so lang wie das 2. Glied, 3. Glied kaum länger als das 2., 4. wenigstens um die Hälfte länger als das 3. Thorax wie bei voriger Art, Mesonotum aber mit den 3 Furchen deutlich.

Flügel wie bei voriger Art, Radialis aber aus dem distalen Fünftel des Pterostigma entspringend, Basalis doppelt so lang wie ihr Abstand vom Pterostigma. Hinterbein wie bei voriger, zwischen dem 2. und dem 3. Zahn stehen aber 5 gereimte Borsten, und 6 zwischen dem 3. Zahn und dem Distalende des Femur. Petiolus fein quergestreift, deutlich kürzer als die Keule des Abdomen, diese beim ♂ allmählich verdickt, gerade, am Hinterende schwach bogig, Keule des ♀ kaum länger als der Petiolus, Abdomen mit Petiolus, 3.5 Millimeter lang; Bohrer, 4.5 Millimeter lang; Klappe einfarbig schwarzbraun bis schwarz.

Länge, ♂ 6 Millimeter; ♀ 6.5.

LUZON, Laguna, Los Baños (*Baker*).

Genus FOENATOPUS Smith

Die Art, worauf Smith die Gattung *Foenatopus* gegründet hat, nämlich *F. ruficeps* Smith, ist identisch mit *F. indicus* Westw. und wurde in den Philippinen beobachtet. Als zweite philippinische Art kommt folgende:

Foenatopus atripes sp. nov.

♀ : Schwarz; Stirn rot von den 3 vorderen Zähnen ab, bis zu den Antennen, Oberlippe, Grund der Mandibeln, Wange, Schläfe und Ventralseite des Kopfes bräunlichgelb, Antennen schwarzbraun, 1. und 2. Glied rot, Palpen blass, Beine einfarbig schwarz. Kopf glatt, glänzend. Stirn mit bogigen Querrunzeln. Scheitel bis zum Hinterrande des Kopfes fein querverunzelt, zwischen den hinteren Ocellen grob querverunzelt. Auge um etwas mehr als sein Drittel vom Hinterrande des Kopfes entfernt. Die 3 vorderen Zähne der Krone gross. Maxillarpalpus 5 gliedrig, mit 3 Gliedern hinter der Biegung, diese sehr lang, allmählich verkürzt, das 3. fast so lang wie das 4. und 5. zusammen. Antennen 38 gliedrig, 3. Glied so lang wie der Scapus, 4. fast doppelt so lang wie das 3., kaum kürzer als das 5., die langen, distalen Haare nur an der Ventralseite vorhanden.

Prothorax lang, halsartiger Teil zwei- bis dreimal so lang wie dick, mehr als doppelt so lang wie der hintere, breitere glatte Teil, fein quergestreift. Mesonotum nicht halb so lang wie der Prothorax, vordere Hälfte glatt oder sehr fein lederartig, hintere Hälfte grob schräg gerunzelt, die 3 Längsfurchen nur in der hinteren Hälfte spurenweise angedeutet. Scutellum grob und zerstreut punktiert, Mitte des medialen Lappens glatt, unpunktet. Mediansegment und Metapleure mit sehr grossen, sich fast berührenden Punkten, ebenso auch die Mesopleure unten.

Flügel glashell, nackt, mit schwarzen Adern, Pterostigma linealisch, distal zugespitzt, zweimal so lang wie die Basalis, Radialis aus dem 2. Drittel des Pterostigma entspringend, winklig, distaler Teil etwas länger als der proximale, Basalis schräg, mehr als doppelt so lang wie der Nervulus, dieser die schräge Richtung der Basalis fortsetzend; Hinterflügel ohne Ader, mit 3 Frenalhäkchen. Vordere Tibia proximal von der Mitte am dicksten, Beine kahl, hintere Coxa quergestreift, so lang wie das Femur, hinteres Femur mit 2 grossen Zähnen in der distalen Hälfte, zwischen beiden befinden sich sehr kleine Zähnen, zwischen dem proximalen Zahn und dem Grunde des Femur liegen 3 mässig grosse Zähne, Stiel der hinteren Tibia kaum länger als die Keule, Tarsus 3 gliedrig, 4. Glied aller Tarsen von oben kaum sichtbar,

ventral mit 2 langen, nach vorn gerichteten und dicht behaarten Lappen. Petiolus des Abdomen 5 Millimeter lang, kahl und quergestreift, Keule 6 Millimeter lang, dorsal gewölbt, ventral gerade, am Vorderende quergestreift, Bohrer 19 Millimeter lang, Klappen schwarz, mit einem grossen, gelblichweissen Ring vor dem Distalende.

Länge, 16.5 Millimeter.

PALAWAN, Puerto Princesa (*Baker*).

[Vol. X, Sec. D, No. 5, of this Journal, was issued May 25, 1916; No. 6, May 26, 1916. Vol. XI, No. 1, was issued May 12, 1916; No. 2, May 24, 1916; No. 3, July 27, 1916; No. 4, September 19, 1916.]

ERRATA

Page 280, line 17, for *Eucoilia* read *Eucoila*.

Page 292, line 1, for *Pausinæ* read *Paussinæ*.

Page 293, line 12 from the bottom, for *benquetia* read *benguetia*.

Page 319, last line, for ♀ read ♂.

INDEX

[New names are printed in clarendon type.]

A

Abirus, 84.
 philippinensis, 84.
 tuberculipennis, 84.
 Abryna eximia, 349.
 (?) hoffmeisteri, **348**.
 newmanni, 349.
 semperi, 349.
 Acanthaclisis, 209.
 Acanthocerinae, 161.
 Acanthoscelides, 79.
 irresectus, 79.
 obtectus, 79.
 Aceralinae, 154.
 Aceraius, 154.
 emarginatus, 154.
 grandis, 154.
 helferi, 154.
 indicus, 154.
 laevicollis, 154.
 palawanus, 154.
 pilifer, 154.
 rectidens, 154.
 Achthophora, 111.
 alma, 111.
 dactylon, 111.
 tristis, 111.
 Aclees, 139.
 gyllenhallii, 139.
 Acmaeodera, 51.
 luzonica, 51.
 stictipennis, 51.
 Acorynus, 122.
 nalis, 122.
 cineraceus, 122.
 emarginatus, 122.
 ligatus, 122.
 luzonicus, 122.
 pallipes, 122.
 pardus, 122.
 samaranus, 122.
 whiteheadi, 122.
 Acratoleon, 209.
 Acrocrypta, 92.
 variabilis, 92.
 Acronia, 115.
 perelegans, 115.
 Aeythopeus, 146.
 pascoei, 146.
 Adelocera, 59.
 luzonica, 59.
 modesta, 59.
 var. tessellate, 59.
 Adephaga, 4.

Adoretinae, 176.
 Adoretus, 176.
 compressus, 176.
 luridus, 176.
 philippinicus, 176.
 ranunculus, 176.
 semperi, 176.
 Aegus, 158.
 acuminatus, 158, 298.
 cicatricosus, 158.
 cornutus, 158.
 currani, 159.
 depressus, 158.
 falciger, 158.
 lunatus, 158.
 luteus, 158.
 nitidicollis, 159.
 obscurus, 158.
 philippinensis, 159.
 punctatus, 158.
 striatellus, 158.
 Aeolesthes, 104.
 holosericea, 104.
 induta, 104.
 similis, 104.
 velutinus, 104.
 Aeolus, 61.
 beccarii, 61, 221.
 Aesiotes, 138.
 notabilis, 138.
 var. sanchezi, 138.
 Aetheomorpha, 81.
 philippinensis, 81.
 semperi, 81.
 Aethriostoma, 40.
 gloriosae, 40.
 Agametina, 144.
 discomaculata, 144.
 Agelasta, 112.
 mediofasciata, 112.
 mystica, 112.
 transversa, 112.
 Agestrata, 163.
 luzonica, 163.
 parryi, 163.
 semperi, 163.
 splendens, 163.
 Agnia, 111.
 casta, 111.
 clara, 111.
 pubescens, 111.
 pulchra, 111.
 voluptuosa, 111.

- Agonia, 101.
 apicalis, 101.
 banksi, 101.
 manilensis, 101.
 vandepolli, 101.
 weberi, 101.
 Agoniella, 101.
 Agonischius, 65.
 bakeri, 232.
 balabakensis, 65.
 basalis, 65.
 brevicollis, 65.
 corpulentus, 232.
 fusiformis, 65.
 marginatus, 65.
 Agrilus, 56.
 acanthopterus, 57.
 acutus, 56.
 aegnicollis, 57.
 armatus, 56.
 atomus, 57.
 bakeri, 57.
 balnearis, 57.
 cupreomaculatus, 56.
 discicollis, 57.
 fontanus, 57.
 inquinatus, 57.
 luzonicus, 57.
 monticola, 57.
 mucronatus, 57.
 nigrocinctus, 57.
 occipitalis, 57.
 ornatus, 57.
 pilicauda, 57.
 puchellus, 56.
 pulcher, 57.
 rubifrons, 57.
 semperi, 57.
 spinosus, 56.
 striaticollis, 57.
 vilis, 57.
 Agrypnus, 59.
 bifoveatus, 59.
 javanus, 59.
 ponderatus, 59.
 robustus, 59.
 tomentosus, 59.
 Alaus, 60.
 brevipennis, 60.
 lacteus, 60.
 modigliani, 60.
 nebulosus, 60, 220.
 pantherinus, 60.
 podargus, 60.
 scytale, 60.
 semperi, 60.
 superbus, 60.
 Albacore, 237.
 Alcides, 142.
 albocinctus, 142.
 burmeisteri, 142.
 erassus, 142.
 decoratus, 142.
 delta, 142.
 leucospilus, 142.
 lorquini, 142.
 ocellatus, 142.
 olivieri, 142.
 parvulus, 142.
 pectoralis, 142.
 rutilans, 142.
 schönherri, 142.
 semperi, 142.
 septemdecimnotatus, 143.
 smaragdinus, 143.
 sulcatulus, 142.
 waltoni, 143.
 Alcidinae, 142.
 Aleochara, 23.
 asiatica, 23.
 japonica, 23.
 philippina, 23.
 postica, 23.
 Alesia, 37.
 diacolor, 37.
 Aleurites moluccanus, 187.
 Alissonotum, 169.
 pauper, 169.
 Allecula, 76.
 sericans, 76.
 Alleculidae, 76.
 Alleculinae, 76.
 Allochotes, 47.
 maculata, 47.
 Allocynips, 286.
 flaviceps, 286.
 Allodape, 301.
 culpulifera, 302.
 var. bakeri, 302.
 jucunda, 303.
 marginata, 302.
 pictitarsis, 302.
 mindanaonis, 302.
 var. reducta, 302.
 palavanica, 303.
 reversa, 303.
 sauteriella, 302.
 Alphotobius, 69.
 diaperinus, 69.
 fagi, 69.
 granivorus, 69.
 piceus, 69.
 picipes, 69.
 quadrinaculatus, 69.
 striatulus, 69.
 Alumahan, 236.
 Amaranthus spinosus, 184.
 Amarygminae, 73.
 Amarygmus, 73.
 angustus, 73.
 callichromus, 73.
 cuparius, 73.
 fulgiditessellatus, 73.
 micans, 73.
 varicolor, 73.
 Ambatinae, 139.
 Amichrotus, 22.
 merritti, 22.
 Amorrhoidea, 141.
 dorsalis, 141.

- Amorphoidea lata*, 141.
 pruinosa, 141.
Amphicordus, 126.
 inproportionatus, 126.
Amphientomum, 197.
Amphigerontia, 197.
 sp., 198.
Amphipsocus, 200.
 connexus, 200.
 unitus, 201.
Amphipsyche, 214.
Amphistemus sanguinolentus, 34.
Amystrops bakeri, 316.
 camptoides, 314.
Anacbat, 237.
Anadastus, 31.
 chapuisi, 31.
 convexicollis, 31.
 elegans, 31.
 melanosternus, 31.
Anancylus, 110.
 stix, 110.
Anasis laevicollis, 25.
Ancaeus, 17.
 nitidissimus, 17.
Anchastus, 63.
 fulvus, 227.
 rufangulus, 63, 227.
 sericeus, 227.
 suturalis, 227.
 unicolor, 63, 226.
 vittatus, 63, 227.
 var. bakeri, 227.
Anchovies, 237.
Ancistria, 30.
 cylindrica, 30.
Ancylopteryx doleschalli, 207.
 8-punctata, 207.
Anisocentropus magnificus, 212.
Anisodactylus, 12.
 javanus, 12.
Anisodera, 99.
 lucidiventris, 99.
 parallela, 99.
 thoracica, 99.
Anisoptera, 204.
Anobiidæ, 48.
Anobiinæ, 48.
Anomala, 171.
 andradei, 172.
 anoguttata, 173.
 atrocyanea, 173.
 baeri, 173.
 bakeri, 171.
 boettcheri, 173.
 camarinensis, 171.
 catenatopunctata, 171.
 ceramopyga, 173.
 chalcoptera, 173.
 chalybaea, 172.
 chloropyga, 173.
 cladera, 173.
 corruscans, 172.
 dasyphyga, 173.
 despumata, 171.
 encausta, 173.
 exanthematica, 173.
 exarata, 171.
 expedita, 173.
 eydouxii, 171.
 flavoscutellata, 171.
 heteroglypha, 173.
 humeralis, 171.
 var. infuscata, 171.
 inconsueta, 173.
 infans, 171.
 inopinata, 173.
 leotaudii, 171.
 var. fuscoviridis, 171.
 macrophthalma, 171.
 maculifemorata, 173.
 nicholitzii, 171.
 nitidissima, 174.
 noctivaga, 172.
 obesa, 174.
 ovatula, 172.
 palawana, 172.
 picturata, 173.
 planata, 172.
 polita, 172.
 praematura, 174.
 proctolasia, 172.
 relucens, 172.
 sanchezi, 171.
 schultzena, 172.
 semperiana, 172.
 seticrus, 174.
 smaragdina, 174.
 smaragdula, 174.
 sulcatula, 172.
 trigonopyga, 174.
 varicolor, 172.
 vietipennis, 172.
 whiteheadi, 172.
Anomalini, 171.
Anoplophora, 109.
 lucipor, 109.
Anotylus, 180.
Anphisternus, 34.
Anthicidæ, 77.
Anthicoelerus, 47.
 anthicoides, 47.
 pallipes, 47.
Anthicus, 78.
 bangi, 78.
 binotatus, 78.
 busignyi, 78.
 floralis, 78.
 gracilicornis, 78.
 grandicollis, 78.
 manillanus, 78.
 medionotatus, 79.
 robusticollis, 79.
 sparsepunctatus, 79.
 subrubrocinctus, 79.
Anthonominæ, 141.
Anthracias, 71.
 elongatus, 71.
Anthribidæ, 121.

- Anthribus, 124.
 philippinensis, 124.
 wallacei, 124.
 Anubis, 107.
 bifasciatus, 107.
 manillarum, 107.
 Aphanisticus, 57.
 bodongi, 57.
 nigroaeneus, 58.
 Aphanobius, 65.
 longicollis, 65.
 longithorax, 65.
 longus, 65.
 Aphioda, 149.
 integripennis, 149.
 Aphodiinae, 161.
 Aphodius, 161.
 crenatus, 161.
 globulus, 161.
 lividus, 161.
 marginellus, 161.
 obsoletus, 161.
 reichi, 161.
 sequens, 161.
 sinuatus, 161.
 Aphrodisium, 106.
 semiignitum, 106.
 Aphthona, 93.
 wallacei, 93.
 Apion, 140.
 schultzei, 140.
 strongylodontis, 140.
 versutum, 140.
 Apioninae, 139.
 Apobletes, 26.
 difficile, 27.
 feriatus, 26.
 fictitius, 26.
 platysomoides, 27.
 semperi, 27.
 tener, 27.
 Apochrysa bellula, 206.
 Apocyrtus, 131.
 inflatus, 131.
 Apoderus, 140.
 badeni, 140.
 insularis, 140.
 ledyardi, 140.
 macrostylus, 140.
 sejunctus, 140.
 tenuissimus, 140.
 Apogonia, 177.
 adoretoides, 177.
 bakeri, 177.
 boettcheri, 177.
 cuprescens, 177.
 lutea, 177.
 magnifica, 178.
 metallescens, 178.
 nigrobrunea, 178.
 oberthüri, 178.
 palawana, 178.
 rizali, 178.
 rugipennis, 178.
 Apogonia squamifera, 178.
 viridana, 178.
 viridifulva, 178.
 Apolecta, 125.
 fasciata, 125.
 maculata, 125.
 samarana, 125.
 Apomecyna, 116.
 proba, 116.
 quadrifasciata, 116.
 tigrina, 116.
 Apotomorrhinus, 150.
 submaculatus, 150.
 vestitus, 150.
 Apries, 143.
 eremita, 143.
 Apriona, 112.
 aphetor, 112.
 latifrons, 112.
 multigranula, 112.
 rixator, 112.
 Aprosterna, 172.
 Apterrorrhinus, 126.
 compressitarsis, 126.
 Araecerus, 125.
 cacao, 125.
 fasciculatus, 125.
 Araecorynus, 125.
 cumingi, 125.
 Arcofacies, 373.
 fullawayi, 377.
 Ardea cinerea, 273.
 Areca catechu, 187.
 Arixyleborus, 153.
 rugosipes, 153.
 Arrhaphe, 228.
 Arrhaphes opacus, 228.
 Arrhaphus, 228.
 Artactes, 71.
 latreillei, 71.
 Artapocyrtus, 132.
 Artocarpus communis, 183.
 Ascalaphidae, 208.
 Asiracinae, 369.
 Asotocerus umbrosus, 212.
 Aspicerinae, 234.
 Aspidimerus, 38.
 tristis, 38.
 Aspidolopha, 81.
 Aspidomorpha, 96.
 amplissima, 97.
 bilobata, 96.
 biradiata, 96.
 calligera, 96.
 celebensis, 97.
 dorsata, 96.
 fraterna, 96.
 fusconotata, 97.
 fusco-punctata, 97.
 miliaris, 97.
 ab. flaveola, 97.
 ab. inundata, 97.
 orbicularis, 97.
 quadrilobata, 97.

- Aspidormorpha quatuordecimpunctata*, 97.
 sanctaerucis, 97.
 suberuciata, 97.
- Astathes*, 120.
 bigemmata, 120.
 bimaculata, 120.
 casta, 120.
 divisa, 120.
 externa, 120.
 fasciata, 120.
 illigeri, 120.
 levis var. *B.*, 120.
 var. *basalis*, 120.
 var. *gallerucoides*, 120.
 var. *p.*, 120.
 mniszehi, 120.
 perplexa, 120.
 var. *B.*, 120.
 var. *p.*, 120.
 plagiata, 120.
 posticata, 120.
- Astenus*, 20.
 indicus, 20.
 oculatus, 20.
 pallidulus, 20.
 parviceps, 20.
- Asthathes levis*, 120.
- Astilbus*, 181.
 luzonicus, 181.
 plicipennis, 181.
- Astraea*, 165.
 benguetia, 293.
 biguttulata, 165.
 francolina, 165.
 margaritacea, 165.
 multimaculata, 165.
 tigrina, 165.
- Asytesta*, 144.
 philippinica, 144.
- Ataenius*, 161.
 peregrinator, 161.
- Atasthalus*, 68.
 serratus, 68.
- Aterpinæ*, 138.
- Atheta*, 23.
 platygaster, 23.
- Atholus*, 28.
 bakeri, 28.
 philippinensis, 28.
- Atopopus*, 204.
- Attractocerus*, 48.
 bruijini, 48.
 celebensis, 48.
 debilis, 48.
 emarginatus, 48.
 fissicollis, 48.
 horni, 48.
 luteolus, 48.
- Attageniwnæ*, 40.
- Attelabinæ*, 140.
- Aulacinus*, 345.
 philippinensis, 345.
- Aulacocaelus*, 9.
 liopleurus, 9.
- Aulacochilus*, 32.
 agaboides, 32.
 var. *furciferus*, 32.
 humeralis, 32.
 inclytus, 32.
 medio-coeruleus, 32.
 propingus, 32.
 quadrisingnatus, 32.
- Aulacocyclinæ*, 155.
- Aulacocyclus*, 155.
 dilatus, 155.
- Aulacophora*, 87.
 albicornis, 88.
 bicolor, 87.
 var. *sexnotata*, 87.
 chapuisi, 88.
 cinctipennis, 87.
 coffea, 87.
 dimidiata, 88.
 flavescens, 88.
 flavicornis, 87.
 limbata, 87.
 maginata, 87.
 marginalis, 87.
 nigripennis, 87.
 pectoralis, 87.
 philippinensis, 87.
 postica, 87.
 quadrinotata, 87.
 quadrinotata, 87.
 rosea, 88.
 similis, 87.
 smaragdipennis, 88.
 tibialis, 87.
 unicolor, 88.
 uniformis, 88.
 var. *bipunctata*, 88.
 varians, 88.
 vittula, 88.
- Auletobius*, 140.
 ascendens, 140.
- Aulexis*, 822.
 flavopilosa, 82.
 luzonica, 82.
 philippinensis, 83.
 puberula, 83.
 pusilla, 83.
- Autoserica*, 176.
 analys, 176.
 eremita, 176.
 nigrorubra, 176.
 philippinensis, 176.
 philippinica, 176.
 stolida, 177.
- B
- Bacbaan*, 237.
- Baetis*, 204.
- Bagasan*, 237.
- Baker, Melasidæ (Coléoptères) des îles Philip-*
pines récoltés par C. F., 387.
- Nitidulidæ (Coléoptères) des îles*
Philippines récoltés par C. F., 313.
- Balanininae*, 140.

- Balaninus, 140.
 axillaris, 140.
 bicolor, 140.
 pertinax, 141.
 radiatus, 141.
 Balistica picipes, 396.
 Bambusa blumeana, 184.
 glaucescens, 184.
 Banac, 237.
 BANKS, NATHAN, Neuropteroid insects of
 the Philippine Islands, 195.
 Baralipon, 103.
 Baratus, 73.
 crenulatus, 73.
 Baridinae, 146.
 Barracudas, 237.
 Barringtonia speciosa, 185.
 Baryrrhynchus, 126.
 rudis, 126.
 Basilan pearl beds, 248.
 Basilianus, 154.
 inaequalis, 154.
 Basitropis, 124.
 lutosa, 124.
 pardalis, 124.
 Batocera, 111.
 albofasciata, 111.
 var. *mniszewski*, 111.
 calcanus, 111.
 numitor, 111.
 octomaculata, 111.
 parryi, 111.
 roylei, 111.
 Batraxis, 24.
 nitidula, 24.
 obesa, 24.
 pubescens, 24.
 Batrisocenus, 24.
 clavipes, 24.
 hamatipes, 24.
 squamicipes, 24.
 tumidipes, 24.
 Batrisodes, 24.
 cavicola, 24.
 verticinus, 24.
 Bees, ceratinid, of the Philippine Islands, 301.
 Bellonota, 55.
 fallaciosa, 55.
 mindorensis, 55.
 sagittaria, 55.
 Belonuchus, 23, 181.
 bakeri, 181.
 nullifecundo, 23.
 Berosus, 40.
 indicus, 40.
 pubescens, 40.
 Birds, new or noteworthy Philippine, 269.
 Bledius, 18.
 compressicollis, 18.
 hoplites, 18.
 philippinus, 18.
 Blepbarida, 94.
 manilensis, 94.
 Biosyrus, 126.
 philippinus, 126.
 Bolitophaginae, 67.
 Bolitrium, 68.
 crenulicollis, 68.
 Bonito, 237.
 Boon leong sit, 240.
 Borolinus, 17.
 bispinus, 17.
 javanicus, 17.
 var. *nigricollis*, 17.
 minutus, 17.
 Boroxylon, 153.
 stephegyni, 153.
 webbi, 153.
 Bostrychidae, 49.
 Bostrychopsis, 49.
 parallela, 49.
 Bothrideres, 182.
 opacicollis, 182.
 Botryonopa, 99.
 bipunctata, 99.
 coeruleipennis, 99.
 collaris, 99.
 crassipes, 99.
 crenata, 99.
 cyanoptera, 99.
 foveicollis, 99.
 geniculata, 99.
 imperialis, 99.
 opaca, 99.
 punctatissima, 99.
 purpurascens, 99.
 terminalis, 99.
 Brachidius, 11.
 crassicornis, 11.
 Brachininae, 11.
 Brachycrura, 377.
 albolineata, 378.
 Brachyderinae, 126.
 Brachynus, 12.
 luzonicus, 12.
 piceus, 12.
 Bradymerus, 67.
 aequecostatus, 67.
 alternicostis, 67.
 caeruleipennis, 67.
 carinatus, 67.
 corinthius, 67.
 crenulicollis, 67.
 elongatus, 67.
 ferruginipes, 67.
 impressicollis, 68.
 violaceus, 68.
 Brenthidae, 125.
 Brenthinæ, 125.
 Bridelia stipularis, 188.
 Bronthispa, 100.
 depressa, 100.
 Brumus, 38.
 suturalis, 38.
 BUNKER, PAUL D., Nesting of the Philip-
 pine glossy starling, 267.
 Buphonida, 91.
 philippinensis, 91.

- Buprestidae, 50.
 Button shells, 245.
 Byrsax, 68.
 satanas, 68.
- Cacia, 112.
 aspersa, 112.
 proteus, 112.
 var. *disjunctata*, 112.
 semiluctuosa, 112.
 spinigera, 112.
 ulula, 112.
 xenoceroides, 112.
- Cæcilius, 202.
 castellus, 202.
 guttulatus, 202.
 inæqualis, 202.
- Cænis, 204.
- Calamoceratidae, 212.
- Calamus sp., 185.
- Calandra, 149.
 frugilega, 149.
 granaria, 149.
 oryzae, 149.
 quadriguttata, 149.
- Calandrinæ, 146.
- Calidiopsis, 137.
 speciosa, 137.
- Callilanguria, 31.
 elegantula, 31.
 eximia, 31.
 flaviventris, 31.
 luzonica, 31.
 stenosoma, 31.
- Callimerus, 45.
 dulcis, 45.
 gratiosus, 46.
 latifrons, 46.
 pulchellus, 46.
 schultzei, 46.
- Callineda, 37.
 decussata, 37.
 sexdecimnotata, 37.
- Callirhipis, 41.
 antiqua, 41.
 bituberculata, 41.
 helleri, 42, 347.
 lagunae, 347.
 montalbanensis, 42.
 nigriventralis, 42.
 orientalis, 347.
 philippinensis, 42.
 tiaongona, 42.
- Callispa, 100.
 cumingi, 100.
 duodecimmaculata, 100.
 flavescens, 100.
 nigricornis, 100.
- Callynomes, 169.
 niveisparsa, 169.
- Calochromus, 42.
 melanurus, 42.
 orbatus, 42.
- Calodromus, 125.
 mellyi, 125.
- Calonyetion bona-nox, 133.
- Calophotia, 43.
 brachyura, 43.
 concolor, 43.
 miranda, 43.
 plagiata, 43.
 praeusta, 44.
- Calopsoeus, 197.
 infelix, 198.
 rizali, 198.
- Calumbang, 237.
- Camang buhu, 237.
- Campososternus, 60.
 eschscholtzi, 60.
 proteus, 60.
 rutilans, 60, 220.
 var. *a*, 221.
 var. *sumptuosus*, 61.
 sumptuosus, 221.
- Camptorrhinus, 143.
 affinis, 143.
 artensis, 143.
 dorsalis, 143.
 pilipes, 143.
 quadrilineatus, 143.
- Cantharis, 44.
 flavifemoralis, 44.
 granulipennis, 44.
- Canthydrus, 13.
 auritus, 13.
 semperi, 13.
- Carabidae, 4.
- Carangidae, 237.
- Caratinidia, 304.
- Carcharias gangeticus, 241.
- Cardanus, 159.
 cribratus, 159.
 laevigatus, 159.
- Cardiophorus, 64.
 alvini, 230.
 anceps, 229.
 bakeri, 64.
 banksi, 229.
 elegans, 64.
 fasciatus, 64.
 inconditus, 64.
 luzonicus, 64, 230.
 nebulosus, 230.
 palawanus, 229.
 philippinus, 229.
 spemendus, 64.
 unicolor, 64, 228.
 var. *striatus*, 229.
- Cardiotarsus, 64.
 fallaciosus, 64.
- Caria, 36.
 arrowi, 36.
- Carpophilinae, 29.
- Carpophilus, 29.
 cribellatus, 29.
 dimitiatus, 29.
 obsoletus, 29.
- Carposinus, 152.
 pini, 152.

- Caryoborus, 79.
 gonagra, 79.
 Casnoidea, 10.
 bakeri, 10.
 Casnonidea, 75.
 atricapilla, 75.
 colon, 75.
 diversipes, 75.
 var. dissimilis, 75.
 mimica, 75.
 mollis, 75.
 perforata, 75.
 serra, 75.
 tenera, 75.
 Cassida, 98.
 obtusata, 98.
 picifrons, 98.
 piperata, 98.
 Cassidineæ, 95.
 Castalia, 51.
 curta, 51.
 cyanipennis, 51.
 inornata, 51.
 moereus, 51.
 obsoleta, 51.
 unicolor, 51.
 Catachaenus, 127.
 cinctellus, 127.
 circulus, 127.
 scintillans, 127.
 Catapiestus, 71.
 mediocris, 71.
 Catascopus, 10.
 aequatus, 10.
 amoenus, 11.
 elegans, 11.
 fascialis, 11.
 gracilis, 11.
 hardwicki, 11.
 nitidulus, 11.
 simplex, 11.
 Catharsius, 160.
 abbreviatus, 160.
 aethiops, 160.
 herbiceus, 160.
 janus, 160.
 mollosus, 160.
 uraus, 160.
 Catoxantha, 51.
 Cavallas, 236.
 Cebionidae, 66.
 Cebriorhipis, 66.
 elongatus, 66.
 Ceiba pentandra, 183.
 Celeuthetinae, 136.
 Centrininae, 150.
 Centrinopsis, 146.
 ebenus, 146.
 Centrophthalmus, 25.
 femorialis, 25.
 philippinensis, 25.
 Cepurellus, 139.
 cervinus, 139.
 Cerambycidae, 102, 293, 347.
 Cerambycinae, 103.
 Ceratina, 303.
 beata, 307.
 benguetensis, 307.
 compacta, 304.
 dentipes, 308.
 flavolateralis, 306.
 fuliginosa, 306.
 hieroglyphica, 304.
 kosemponis, 307.
 lepida, 308.
 morawitzii, 305.
 philippinensis, 304.
 humilior, 304.
 subsp. nigrolatera-
 lis, 305.
 ridleyi, 306.
 sexmaculata, 304.
 tropica, 306.
 Ceratinid bees of the Philippine Islands, 301.
 Ceratus bakeri, 390.
 frontalis, 390.
 nitidus, 390.
 parvulus, 391.
 sumatrensis, 390.
 unicus, 391.
 Cercidocerus, 148.
 curvaturatus, 148.
 flavopictus, 148.
 similis, 148.
 x-rubrum, 148.
 Cercopsius, 110.
 irregularis, 110.
 luctor, 110.
 praetorius, 110.
 quaestor, 110.
 Ceresium, 105.
 aethiops, 105.
 ambiguum, 105.
 flavipes, 105.
 guttaticole, 105.
 immita, 105.
 raripilum, 105.
 simplex, 105.
 unicolor, 105.
 zeylanicum, 106.
 Cerobates, 125.
 sexsulcatus, 125.
 tristriatus, 125.
 Cerogria, 75.
 dohrni, 75.
 meloides, 75.
 Ceropria, 68.
 dolorosa, 68.
 induta, 68.
 subocellata, 68.
 Cerylinæ, 182.
 Cerylon, 182.
 monticola, 182.
 Cetonia, 165.
 gregori, 165.
 Cetoninae, 162, 293, 349.
 Chalcosoma, 170.
 atlas, 170.
 hesperus, 170.

- Chalcosoma mollenkampii*, 171.
phidias, 170.
Chanos chanos, 271.
Charichirus, 20.
Chauliodes, 205.
Chemodasus, 67.
 rectangulus, 67.
Chibia borneensis, 275.
Chilocorus, 38.
 cerberus, 38.
 melanophthalmus, 38.
 ruber, 38.
Chilomenes, 35.
 sexmaculata, 35.
Chimarrha, 211.
 luzonica, 216.
Chin leh, 262.
Chirida, 98.
 pardalina, 98.
 punctaria, 98.
 punctata, 98.
 westringi, 98.
Chirotonetes, 204.
Chirozetes, 144.
 arotes, 144.
Chlaeniinae, 12.
Chlaenius, 12.
 aeruginosus, 12.
 binotatus, 12.
 var. *guttatus*, 12.
 femoratus, 12.
 flavofemoratus, 12.
 hamatus, 12.
 leucops, 12.
 luzonicus, 12.
 maculifer, 12.
 punctatus, 12.
 puncticeps, 12.
 semperi, 12.
Chlamydinæ, 81.
Chloridolum, 106.
 accensum, 106.
 addictum, 106.
 everetti, 106.
 phaetusa, 106.
 rugatum, 106.
Chlorophorus, 107.
 annularis, 107.
 australis, 107.
 incanus, 107.
 manillae, 107.
 nigerrimus, 107.
Choeromorpha, 113.
 trifasciata, 113.
Chorites, 182.
 oblongus, 182.
Chreonoma, 121.
 dapsilis, 121.
 dilecta, 121.
 kraatzii, 121.
 pallida, 121.
 puncticollis, 121.
Chrosis, 232.
Chrysobothris, 55.
 bristripunctata, 55.
 octonotata, 55.
 philippinensis, 55.
 pictiventris, 55.
 ventralis, 55.
Chrysochroa, 51.
 assamensis, 51.
 aurotibialis, 52.
 bicolor, 51.
 brunnea, 51.
 ceylonensis, 52.
 chrysuræ, 52.
 chrysuroides, 52.
 cyanura, 51.
 eschschoitzii, 52.
 fulgurans, 52.
 fulminans, 52.
 gigantes, 51.
 heros, 51.
 lata, 52.
 mouhoti, 51.
 nigricornis, 51.
 patruelis, 52.
 prælonga, 52.
 purpurea, 51.
 semperi, 52.
 tenuicauda, 52.
Chrysodema, 53.
 adjuncta, 53.
 aeneo-violacea, 54.
 antennata, 53.
 arrogans, 54.
 aruensis, 54.
 aurifera, 54.
 aurofoveata, 53.
 chrysoscoelis, 54.
 costata, 53.
 cuprea, 53.
 dalmanni, 53.
 deyrollei, 53.
 dohrni, 53.
 eximia, 53.
 flavicornis, 53.
 fuscitarsis, 53.
 granulosa, 53.
 hebes, 53.
 impressicollis, 54.
 intercostata, 53.
 jucunda, 53.
 laevissima, 54.
 manillarum, 54.
 mniszewski, 54.
 moluccana, 54.
 orientalis, 54.
 philippinensis, 54.
 proxima, 54.
 purpureicollis, 54.
 rouxi, 54.
 smaragdula, 54.
 stevensi, 54.
 subrevisa, 53.
 variipennis, 54.
 violacea, 54.
Chrysomelidæ, 79.
Chrysomelinæ, 86.

- Chrysopa*, 206.
 azygota, 207.
 faceta, 207.
 ilota, 207.
 isolata, 207.
 morota, 207.
 tagalica, 207.
Chrysopida, 83.
 adonis, 83.
 attelaboides, 83.
 aurevillosa, 83.
 curta, 84.
 depressicollis, 84.
 festiva, 84.
 insignis, 84.
 murina, 84.
 nigrita, 84.
 pubipennis, 84.
 regalis, 84.
 semperi, 84.
 subglabrata, 84.
Chrysopidæ, 206.
Chu sit, 240.
Cicindela, 7.
 aurovittata, 7.
 clara, 7.
 subsp. *aenula*, 7.
 subsp. *rugothoracica*, 7.
 subsp. *suavissima*, 7.
 conicollis, 7.
 conspicua, 7.
 despectata, 7.
 discreta, 7.
 dorsolineata, 8.
 elaphoroides, 7.
 coa, 7.
 excisa, 7.
 foveolata, 7.
 fugax, 7.
 holosericea, 7.
 incerta, 8.
 indigna, 7.
 insularis, 7.
 lacrymosa, 7.
 lequilloni, 8.
 macilenta, 7.
 mandibularis, 7.
 mucronata, 7.
 nana, 8.
 pauper, 8.
 semperi, 8.
 sexpunctata, 8.
 simivittata, 8.
 simulatrix, 8.
 stenodera, 8.
 striolata, 8.
 subsp. *tenuiscripta*, 8.
 suavis, 8.
 subfasciata, 7.
 sumatrensis, 8.
 terminata, 8.
 triguttata, 8.
 uniens, 8.
 vigorsi, 8.
Cicindela virginalis, 8.
 virginea, 8.
 subsp. *interposita*, 8.
Cicindelinae, 4.
Cionus, 142.
Cisseicoraebus, 56.
 grandis, 56.
Cissites, 77.
 clavipes, 77.
 testacea, 77.
Cissus trifolia, 183.
Cistelomorpha, 76.
 anaematica, 76.
 distincticornis, 76.
 rufiventris, 76.
 semipellita, 76.
 subcostulata, 76.
Citrus spp., 183.
Cladiacus, 45.
 sanguinicollis, 45.
 strangulatus, 45.
Cladognathinae, 157.
Cladognathus, 157.
 brahminus, 157.
 downesi, 157.
 giraffa, 157.
Cleomenes, 108.
 dibammaphoroides, 108.
Cleoninae, 138.
Cleonus, 138.
 bimaculatus, 138.
 bisignatus, 138.
Cleoporus, 85.
 cruciatus, 85.
Cleorina, 85.
 castanea, 85.
 morosa, 85.
 philippinensis, 85.
 tibialis, 85.
Cleridæ, 45.
Clerinae, 45.
Climaciella luzonica, 208.
Clinteria, 163.
 formosa, 163.
Clivina, 9.
 castanea, 9.
Cloeon, 204.
Clupeidæ, 237.
Clypeodyetes, 13.
 atomus, 13.
 pseudogeminus, 13.
 transversus, 13.
Clypeolaria, 83.
 laticollis, 83.
 thoracica, 83.
Clyster, 169.
 ajax, 169.
 itys, 169.
Clytrinae, 81.
Clyzomedus, 113.
 fastidiosus, 113.
Cnecodes, 91.
 saturalis, 91.
Cnodaloninae, 71.
Coccinellidæ, 35.

- Coccotrypes, 152.
 graniceps, 152.
 pygmaeus, 152.
 COCKERELL, T. D. A., The ceratinid bees
 of the Philippine Islands, 301.
 Coelophora, 36.
 bisellata, 36.
 calypso, 36.
 inaequalis, 36.
 var. mendica, 37.
 mendax, 36.
 newporti, 36.
 novemmaculata, 36.
 octopunctata, 36.
 oculata, 36.
 personata, 36.
 schultzei, 37.
 sexguttata, 37.
 versipellis, 37.
 vidua, 37.
 Coenobius, 81.
 manilensis, 81.
 Coenochilus luzonicus, 349.
 Coenolanguria, 31.
 acuminata, 31.
 Coenonica, 23, 181.
 bakeri, 23.
 parviceps, 181.
 Colaspoides, 86.
 philippinensis, 86.
 Colasposoma, 84.
 cumingi, 84.
 distinctum, 84.
 gregarium, 84.
 nitidum, 84.
 pretiosum, 84.
 rugiceps, 84.
 viridifasciatum, 84.
 Coleoptera, Philippine, 1.
 Coleopteren Fauna der Philippinen, 291, 347.
 Coléoptères des îles Philippines récoltés par
 C. F. Baker, 313, 387.
 Collyridae, 181.
 Collyridinae, 181.
 Collyris, 4.
 abbreviata, 5.
 acrolia, 4.
 affinis, 5.
 albitarsis, 5.
 ampullacea, 5.
 angularis, 5.
 bonelli, 5.
 subsp. paraguensis, 5.
 brevicollis, 5.
 chaudoiri, 5.
 emarginata, 5.
 erichsoni, 5.
 femorata, 5.
 filicornis, 5.
 gracilis, 5.
 longicollis, 5.
 var. duplominor, 5.
 plicata, 5.
 rugel, 5.
 similior, 5.
 similis, 5.
 Collyris speciosa, 5.
 speciosula, 5.
 waterhousei, 5.
 Colobicus, 33, 181.
 parilis, 33, 181.
 rugulosus, 181.
 Colpodes, 9.
 abropoides, 9.
 amoenus, 10.
 apicalis, 10.
 luzonicus, 10.
 ruficeps, 10.
 Colydiidae, 33.
 Comacupes, 155.
 basalis, 155.
 comatus, 155.
 felderi, 155.
 Comproneuria, 204.
 Comusia, 103.
 obrionoides, 103.
 obriumoides, 103.
 Coniopterygidae, 211.
 Conocræra, 372.
 acutipennis, 373.
 Copelatus, 14.
 heterogynus, 14.
 masculinus, 14.
 quadrisingnatus, 14.
 Coprininae, 159.
 Copris, 160.
 tetraodon, 160.
 Coproporus, 23.
 atomus, 23.
 minutissimus, 23.
 subdepressus, 23.
 Coptoborus, 153.
 terminaliae, 153.
 Coptodryas, 153.
 confusa, 153.
 Coptops, 112.
 tetrica, 112.
 Coptorhynchus, 137.
 elongatus, 137.
 granosus, 137.
 irroratus, 138.
 ostentatus, 138.
 setipennis, 138.
 waltoni, 138.
 Coptotermes, 352.
 flavicephalus, 352.
 Coptotermitinae, 352.
 Coraebus, 56.
 cisseoides, 56.
 coelestis, 56.
 hastatus, 56.
 laportei, 56.
 melibaeiformis, 56.
 pullatus, 56.
 spinosus, 56.
 transversus, 56.
 Corrodentia, 197.
 Corymbitinae, 232.
 Corynetinae, 47.
 Corynodes, 85.
 congener, 85.
 castatus, 86.

- Corynodes* *cumingi*, 86.
egregius, 86.
hopei, 86.
indigaceus, 86.
longicornis, 86.
simplicicornis, 86.
suaveolus, 86.
waterhousei, 86.
Cosmopolitus, 148.
crenatus, 148.
sordidus, 148.
Cossoninae, 150.
Cossonus, 150.
ambitiosus, 150.
canaliculatus, 150.
Cossyphinae, 70.
Cossyphus, 70.
striatus, 70.
Cothonaspis, 281.
lagunensis, 281.
rufata, 281.
Cratocerinae, 11.
Criocerinae, 80.
Crioceris, 80.
dehaani, 80.
impressa, 80.
nucea, 80.
philippinensis, 80.
saundersi, 80.
semipunctata, 80.
tumida, 80.
unipunctata, 80.
Crossitarsus, 154.
comatus, 154.
flavomaculatus, 154.
lecontei, 154.
Cryphalinae, 151.
Cryphalus, 152.
squamulosus, 152.
Cryptobium, 21.
abdominale, 21.
var. acherontium, 21.
var. discoideum, 21.
var. indicum, 21.
var. rufipenne, 21.
banksi, 21.
fossigerum, 21.
pygiale, 21.
suturale, 21.
Cryptocephalinae, 81.
Cryptocephalus, 81.
laevissimus, 81.
Cryptodactylus, 56.
philippinensis, 56.
Cryptoderma, 149.
philippinense, 149.
Cryptodermineae, 149.
Cryptogonus, 38.
orbiculus, 38.
var. nigripennis, 38.
Cryptorhynchinae, 143.
Cuecut, 237.
Cucujidae, 30.
Cueurbita maxima, 183.
Cupania sp., 186.
Cupedidae, 16.
Cupes, 16.
mucidus, 16.
Cureulionidae, 126.
Cutamboc, 237.
Cyamobolus, 144.
charpentieri, 144.
obliquus, 144.
palawanicus, 144.
sturmi, 144.
var. definitus, 144.
Cyaniris, 81.
impicta, 81.
Cybister, 15.
bisignatus, 15.
celebensis, 15.
japonicus, 15.
limbatus, 15.
notasicus, 15.
olivaceus, 15.
sugillatus, 15.
tripunctatus, 16.
var. temnenki, 16.
Cyclommatus, 158.
affinis, 158.
dehaani, 158.
fuller-bakeri, 296.
zuberi, 158, 296.
Cyclotoma, 35.
coccinellina, 35.
quatuordecimpunctata, 35.
testudinaria var., 35.
Cylas, 139.
turcippennis, 139.
Cylidrus, 45.
alcyoneus, 45.
cyaneus, 45.
pallipes, 45.
vescoi, 45.
Cylindroctenus, 45.
chalybaeum, 45.
Cylindromorphus, 57.
orientalis, 57.
Cylistosoma, 28.
dufali, 28.
scitulum, 28.
Cynipiden, neuer Beitrag zur Kenntnis der philippinischen, 279.
Cynorta, 89.
cavifrons, 89.
citrina, 90.
discoidea, 90.
Cyphagogus, 125.
whitei, 125.
Cyphaleinae, 71.
Cyphicerus, 138.
appendicinus, 138.
Cyphogastra, 54.
aereiventris, 54.
cupricollis, 54.
santae-crucis, 54.
Cyrnota limbata, 90.
longicornis, 90.
parvicollis, 90.
quadrilagiata, 90.

- Cyrnota semilimbata*, 90.
 semperi, 90.
 signifera, 90.
 tripunctata, 90.
Cyrtoscydmus, 25.
 antipolensis, 25.
 fundaebraccatus, 25.
 manillae, 25.
Cyrtotrachelus, 146.
 lar, 146.
 longimanus, 147.
- D
- Dacnotillus*, 25.
 simoni, 25.
Dacryphalus, 152.
 obesus, 152.
Dactylipalpus, 150.
 quadrato-collis, 150.
 transversus, 150.
Dactylispa, 101.
 bipartita, 101.
 cladophora, 102.
 dimidiata, 102.
 infuscata, 102.
 palliat, 102.
 perroteti, 102.
 puberula, 102.
 vittula, 102.
Dactylosternum, 41.
 rubripes, 41.
Daedania, 145.
 onca, 145.
 subsp. *philippinensis*, 145.
Dascillidae, 41.
Dascillinae, 41.
Dascillus, 41.
 obscuripes, 41.
Dasyroclerus, 46.
 banksi, 46.
Dasyvalgus, 169.
 sellatus, 169.
 var. *luzonicus*, 169.
Delgadus, 209.
Delphacidae, 311, 369.
Delphacinae, 372.
Delphacini, 377.
Delphax, 385.
 albicollis, 385.
 anemonias, 385.
 eupompe, 385.
 kolophon, 385.
 maidis, 384.
Demodes, 109.
 immunda, 109.
Demonax, 108.
 lineola, 108.
 nigrofasciatus, 108.
 patronus, 108.
 protogenes, 108.
 pu-dicus, 108.
Dendrocalamus, 311.
Dendroleon sanchezi, 209.
Dendrophagus, 30.
 serratus, 30.
- Dendrotrogus*, 124.
 hypocrita, 124.
Dercetes, 88.
 marginella, 88.
 punctata, 89.
 quadriplagiata, 89.
 soluta, 89.
 terminata, 89.
 tibialis, 89.
Dermestes, 40.
 cadaverinus, 40.
 vulpinus, 40.
Dermestidae, 40.
Dermestinae, 40.
Derolus, 104.
 demissus, 104.
 strigicollis, 104.
 volvulus, 104.
Derosphaerus, 71.
 rotundicollis, 71.
 simillimus, 71.
Desmidophorus, 143.
 cumingi, 143.
 var. *pustulosus*, 143
 hebes, 143.
Dialeges, 105.
 pauper, 105.
 tenuicornis, 105.
Diamesus, 26.
 bifasciatus, 26.
 osculans, 26.
Diaperinae, 68.
Diaphanes, 43.
 pellucens, 43.
Diapromorpha, 81.
 manilensis, 81.
Diastephanus, 407.
 albidens, 407.
 flavifrons, 408.
 leucostictus, 409.
Diaxenes, 116.
 taylori, 116.
Dicercomorpha, 55.
 albosparsa, 55.
 argenteoguttata, 55.
 cupreomaculata, 55.
 fasciata, 55.
 mutabilis, 55.
 viridicollis, 55.
Diceros, 162.
 ornatus, 162.
 var. *biguttata*, 162.
Diceranotropis, 385.
 koebele, 385.
 maidis, 384.
 vastatrix, 378.
Dietopsis, 76.
 amplicollis, 73.
Dietysus, 73.
 luzonicus, 73.
Dihammus, 110.
 antenor, 110.
 bianor, 110.
 fistulator, 110.
 marcipor, 110.

- Dihammus rhetenor*, 110.
 triangularis, 110.
Dilatotarsa, 6.
 beccarii, 6.
Dimax, 93.
 media, 93.
Dinarthrodes, 212.
Dineutes, 16.
 australis, 16.
 curtulus, 16.
Dinoderus, 49.
 bifoveolatus, 49.
 brevis, 49.
 distinctus, 49.
 minutus, 49.
 pilifrons, 49.
 siculus, 49.
 substriatus, 49.
Diocalandra, 149.
 discors, 149.
 frumentii, 149.
Diochares, 109.
 mindanaonis, 109.
Diochus, 22.
 conicollis, 22.
 major, 22.
Diorthus, 104.
 cinereus, 104.
 holosericeus, 104.
 inclemens, 104.
 simplex, 104.
 sordidus, 104.
 vernicosus, 104.
Dioryche, 12.
 laticeps, 12.
Diospyros pilosanthera, 184.
Dipelicus, 170.
 deiphobus, 170.
Diplectrona, 215.
 cinctipennis, 216.
Diploconus, 64.
 angusticollis, 64, 230.
 bakewelli, 64.
 cantharus, 64, 231.
 cervinus, 64.
 ciprinus, 64, 230.
 consanguineus, 64.
 erythronotus, 64.
 erythropus, 64.
 nitidus, 231.
 obscurus, 64, 230.
 philippinensis, 64, 230.
 politus, 64.
 umbilicatus, 64, 230.
Dipseudopsis, 215.
 bakeri, 215.
 luctuosa, 215.
 nebulosus, 216.
 nervosa, 215.
Dipterocarpus grandiflorus, 188.
 palosapis, 186.
Discolomidae, 33.
Distoleon, 210.
 bakeri, 210.
 cleonice, 211.
 disjunctus, 211.
Ditoneces, 42.
 philippinensis, 42.
 pilosicornis, 42.
 pusillus, 42.
Diurus, 126.
 philippinicus, 126.
Docimocaria, 36.
 cumingi, 36.
 insignis, 36.
Dolicaon, 21.
 sparsiventris, 21.
Dolichoctis, 10.
 gilvipes, 10.
Doliema, 69.
 platisoides, 69.
 spiniicollis, 70.
 var. *suturalis*, 70.
Doliops, 115.
 curculionoides, 115.
 geometrica, 115.
Donacia, 79.
 wiepkeni, 79.
Donaciinae, 79.
Dopa, 237.
Dorcinae, 158.
Doryda, 88.
 ferruginea, 88.
Drasterius, 61.
 insularis, 61.
 sulcatulus, 61, 226.
Dromæolus congener, 388.
 indicus, 388.
 minus, 390.
 opacus, 388.
 parvulus, 389.
 solitarius, 389.
 subopacus, 389.
Dryopidae, 40.
Drypta, 10.
 lineola, 10.
 var. *philippinensis*, 10.
Dryptinae, 10.
Dynastinae, 169.
Dypsocus, 197.
 apicatus, 203.
 coleoptratus, 203.
Dyscerus, 139.
 unifasciatus, 139.
Dytiscidae, 12.
Dytiscinae, 14.

F

Echnopsyche reticulata, 216.
Ecnomus, 215.
Ectatorhinus, 143.
 wallacei, 143.
Ectocemus, 126.
 badeni, 126.
Egretta garzetta, 272.
Elater, 62.
 conspurcatus, 62, 226.
Elateridae, 59, 219.
Eleusis, 17.
 fusciceps, 17.
 philippina, 17.
Embiidae, 197.

- Emporius, 30.
 longicornis, 30.
 Encaustes, 32.
 cinctipes, 32.
 crotchi, 32.
 palawanica, 32.
 tagala, 32.
 Encyalesthus, 70.
 nitidipennis, 70.
 striatus, 70.
 Eneymon, 34.
 angulatus, 35.
 gerstaeckeri, 35.
 immaculatus, 34.
 regalis, 35.
 Endelus, 58.
 bakeri, 58.
 cornutus, 58.
 Endomia, 79.
 baeri, 79.
 var. nigrobrunneus, 79.
 Endomychidæ, 33.
 Endomychinæ, 34.
 Endymia, 144.
 apicalis, 144.
 effusa, 144.
 philippinica, 144.
 Enganodia, 74.
 sanguinicus, 74.
 Engraulidæ, 237.
 Enhydrinæ, 16.
 Enneamera, 94.
 neglecta, 94.
 nigra, 94.
 thoraxica, 94.
 Enochrus, 41.
 escuriens, 41.
 nigriceps, 41.
 Enoplorus, 40.
 Enterobium saman, 183.
 Entomophthalmus bonvouloiri, 396.
 fugax, 396.
 var. rubripennis, 396.
 Eophileurus, 169.
 chinensis, 169.
 Eoporis, 117.
 elegans, 117.
 Epania, 106.
 discolor, 106.
 longicollis, 106.
 Epaphra, 117.
 valga, 117.
 Epepeotes, 109.
 ambigenus, 109.
 captiosus, 109.
 fimbriatus, 109.
 lineator, 110.
 plorator, 110.
 rhobetor, 110.
 Epicauta, 77.
 insularis, 77.
 var. montalbana, 77.
 Epidelus, 52.
 philippinensis, 52.
 Epidelus tricolor, 52.
 wallacei, 52.
 Epiechinus, 28.
 lagunae, 28.
 Epierus, 28.
 nasicornis, 28.
 Epilachna, 39.
 diffinis, 39.
 var. signatula, 39.
 var. stolidia, 39.
 pusillanima, 39.
 pytho, 39.
 vigintioctopunctata, 39.
 Epinephalus lanciatus, 237.
 Epipedocera, 108.
 lunata, 108.
 Epipsocus, 199.
 completus, 200.
 inornatus, 199.
 marginatus, 199.
 Episalus, 209.
 Episcapha, 33.
 antennata, 33.
 quadrinacula, 33.
 semperi, 33.
 vestita, 33.
 Episcaphula, 33.
 philippinarum, 33.
 quadrisignatus, 33.
 Episomus, 138.
 lateralis, 138.
 lentus, 138.
 Eremninæ, 138.
 Eretes, 15.
 sticticus, 15.
 Ergania, 141.
 decorata, 141.
 var. zamboangana, 141.
 Erihchinæ, 139.
 Erisphagia, 282.
 cupulifera, 282.
 philippinensis, 282.
 Erotylidæ, 31.
 Erotylinæ, 32.
 Erystus, 94.
 banksi, 94.
 Erythrina indica, 186.
 Ethas, 66.
 carinatus, 66.
 stenosides, 66.
 Euchirinæ, 180.
 Euchirus, 180.
 dupontianus, 180.
 quadrilineatus, 180.
 Euchlora, 173.
 Euclea, 114.
 albata, 114.
 capito, 114.
 irrorata, 114.
 mesoleuca, 114.
 rhombifera, 114.
 ruficollis, 114.
 tagala, 114.
 Euclimacia tagalensis, 208.
 Eucnemidæ, 58.

- Eucoila*, 279.
 (*Episoda*) *luzonica*, 280.
 manillensis, 280.
 philippinarum, 280.
 pulchra, 279.
- Eucorynus*, 124.
 crassicornis, 124.
 setosulus, 124.
- Eucyrtus*, 72.
 acutangulus, 72.
 clypealis, 72.
 excellens, 72.
 gloriosus, 72.
 lisae, 72.
 nigripes, 72.
 ovipennis, 72.
 subcostatus, 72.
- Eudynamus* *honorata*, 275.
- Eugigas*, 121.
 whiteheadi, 121.
- Eugithopus*, 148.
 elegans, 148.
 ochreatus, 148.
 var. *albiventris*, 148.
 ornatus, 148.
 plagiatus, 148.
- Euglypta*, 168.
 attenuata, 168.
 biplagiata, 169.
 megaspilota, 169.
 multiguttata, 169.
- Euglyptonotus*, 78.
 magretti, 78.
- Eugnathus*, 127.
 constrictus, 127.
- Eulichas*, 41.
 baeri, 41.
 fulvulus, 41.
- Eulissus*, 21.
 anachoreta, 21.
 honkongensis, 21.
 morio, 21.
- Eumaen*, 89.
 fasciata, 89.
- Eumetopina*, 383.
 falvipes, 383.
- Eumolpinæ*, 81.
- Eumorphus*, 34.
 confusus, 34.
 convexicollis, 34.
 cyanescens, 34.
 dehaani, 34.
 murrayi, 34.
 quadriguttatus, 34.
 quadripustulatus, 34.
 subguttatus, 34.
 sybarita, 34.
 tetraspilota, 34.
 thomsoni, 34.
- Euoplia*, 109.
 argenteo-maculata, 109.
 pulchellator, 109.
- Euops*, 140.
 jekeli, 140.
 willemoesi, 140.
- Eupachyrrhynchus*, 131.
 superbus, 131.
- Eupatorus*, 170.
 hardwickei, 170.
- Eupyrigops*, 137.
 banahaonis, 137.
 granulosus, 137.
 semperi, 137.
 subannulatus, 137.
- Eurydactylus*, 153.
 abnormis, 153.
 sexspinosus, 153.
- Euryphagus*, 108.
 bipunctatus, 108.
 maxillosus, 108.
 pictus, 108.
 var. *nigricollis*, 109.
 quadrimacula, 108.
 variabilis, 108.
- Eurytrachelus*, 153.
 cribriceps, 158.
 moloschus, 158.
 titanus, 158.
 var. *typhon*, 158.
- Eustathes*, 121.
 flava, 121.
- Eutermes*, 359.
 (*Ceylonitermes*) *mcgregori*, 361.
 (*Eutermes*) *gracilis*, 362.
 manillensis, 363.
 (*Grallatitermes*) *luzonicus*, 364.
 (*Hospitalitermes*) *hospitalis*, 360.
 saraiensis, 359.
- Euthyastus*, 111.
 binotatus, 111.
- Eutochia*, 69.
 lateralis, 69.
 picescens, 69.
- Eutornus*, 150.
 luzonicus, 150.
 rufobasalis, 150.
 stricticollis, 150.
- Euwallacea*, 153.
 streblicola, 153.
- Evania*, 319.
 annularis, 329.
 annulipes, 319.
 appendigaster, 321.
 arcigera, 332.
 butuanensis, 326.
 impressa, 319.
 luzonica, 324.
 nigrithorax, 325.
 var. *distans*, 326.
 var. *sculptilis*, 325.
 opaca, 320.
 philippinensis, 330.
 pilosipes, 321.
 punctatior, 322.
 rubripes, 327.
 tenuicornis, 328.
 variceps, 332.
 verrucosa, 319.

- Evaniiden (Hymenoptera) der Philippinen, 317.
- Examnes, 106.
 idoneus, 106.
 longicornis, 106.
 philippensis, 106.
- Exema, 81.
 distincta, 81.
 philippina, 81.
- Exopholis, 178.
 philippinea, 178.
- F**
- Ficus careca, 185.
 nota, 185.
- Figulinae, 159.
- Figulus, 159.
 fissicollis, 159.
 laticollis, 159.
 manilarum, 159, 298.
 modestus, 159.
- Fin, kinds and values of shark, 240.
- Fish, salt, dry, and smoked, 239.
- Fishes, sharks and food, 235.
- Fishing banks of Mindanao and Sulu, 236.
- FLEUTIAUX, ED., Elateridae des îles Philippines, 219; Melasidae (Coléoptères) des îles Philippines récoltés par C. F. Baker, 387.
- Foenatopus, 410.
 atripes, 410.
- Formicaleo, 210.
- Formicaleon, 210.
- Formicomus, 78.
 baeri, 78.
 consul, 78.
 imperator, 78.
 inhumeralis, 78.
 javanicus, 78.
 obscurus, 78.
 var. obscurior, 78.
 praetor, 78.
 roseleri, 78.
- Formosan Purohita (Delphacidae), 311.
- Fornax, 58.
 ater, 393.
 cedonulli, 395.
 var. **bakeri, 395.**
 concolor, 393.
 cribricollis, 391.
 denticornis, 392.
 direxoides, 58, 393.
 elegantulus, 394.
 fusiformis, 392.
 grouvellei, 393.
 morusus, 58, 393.
 nicotianae, 393.
 niger, 393.
 ovatus, 394.
 philippinensis, 393.
 subquadratus, 392.
 trapezicollis, 394.
 vitticollis, 395.
- Fringilla amandava, 275.
- Fujita, experiments on cultural pearl production in Japan by Professor, 251.
- G**
- Galambu, 241.
- Galba, 58.
 albiventris, 59.
 auricolor, 58.
 funebria, 59.
 marmorata, 59.
 murina, 59.
 sericata, 59.
- Galeocerdo tigrinus, 241.
- Galerucella, 88.
 mindorana, 88.
 philippinensis, 88.
- Galerucinae, 85.
- Ganaspis, 283.
 aperta, 283.
 hexatoma, 284.
 minima, 284.
 validicornis, 283.
- Ganonema, 212.
- Garopa, 237.
- Gasteruption, 344.
 bakeri, 345.
 philippinense, 344.
- Gastrocentrum, 45.
 pauper, 45.
 unicolor, 45.
- Gaud-gaud, 237.
- Gaurambe, 29.
 pubescens, 29.
- Gelonaetha, 106.
 curtipes, 106.
 hirta, 106.
 obscurus, 106.
- Gibbiinae, 49.
- Gibbium, 49.
 psylliodes, 49.
 scotics, 49.
- Glenea, 117.
 albonotata, 117.
 ana, 118.
 aphrodite, 118.
 astarte, 118.
 beatrix, 118.
 bivittata, 118.
 cinerea, 118.
 colobothoides, 118.
 concinna, 118.
 coryphaea, 118.
 cylindrepomoides, 118.
 elegans, 118.
 exculta, 118.
 glaucia, 118.
 kraatzi, 118.
 lepida, 118.
 leucospilota, 117.
 lineella, 118.
 lusoria, 118.
 lycoris, 118.
 magica, 118.
 maura, 118.
 ochraeovittata, 118.
 palavensis, 119.
 picta, 119.
 regularis, 119.
 severa, 119.

- Glenea stellata*, 119.
suavis, 119.
varifascia, 119.
versuta, 119.
viridipustulata, 118.
 Glossy starling, nesting of the Philippine, 267.
Glycyphana, 164.
 aethiessa, 164.
 cuculus, 165.
 palawana, 165.
 peroviridis, 165.
 pexata, 165.
 pulcherrima, 165.
 robusta, 165.
 rubromarginata, 165.
 rubroscutellaris, 165.
 vernalis, 165.
Glyphilanguria, 31.
 longipes, 31.
Glyphonyx, 66.
 dissimilis, 66.
 erraticus, 66, 233.
 var., 233.
 var. attonitus, 66.
 falsus, 66, 233.
 feneus, 66, 233.
 frontalis, 66.
 ornatus, 233.
 posticus, 66, 233.
 quadrinaculatus, 233.
Gnatholea, 105.
 simplex, 105.
 stigmatipennis, 105.
Gnoma, 112.
 jugata, 112.
 luzonica, 112.
Goera, 212.
Gonatinæ, 155.
Gonatus, 155.
 naviculator, 155.
Gonipterinæ, 138.
Gonocephalum, 67.
 acutangulum, 67.
 adpressum, 67.
 bilineatum, 67.
 depressum, 67.
Genophora, 101.
 apicalis, 101.
 bimaculata, 101.
 chapuisi, 101.
 femorata, 101.
 lineata, 101.
 maculipennis, 101.
 tibialis, 101.
Gossypium hirsutum, 183.
 Green snail, 262.
 Groupers, 237.
 GROUVELLE, A., Nitidulidæ (Coléoptères)
 des îles Philippines récoltés par C. F. Baker,
 313.
Gymnopleurus, 159.
 maurus, 159.
 stipes, 159.
Gyrinidæ, 16.
Gyrininae, 16.
Gyrinus, 16.
 oceanicus, 16.
 sericeo-limbatus, 16.
 tenuistriatus, 16.
 II
Habryna, 114.
 coenosa, 114.
 comosa, 114.
Hadeodelphax, 382.
 pluto, 382.
Hagenomyia, 209.
Halme, 108.
 spinocornis, 108.
Halticinæ, 92.
Haplosonyx, 89.
 albicornis, 89.
 banksi, 89.
 fulvicornis, 89.
 philippinensis, 89.
 philippinus, 89.
 smaragdipennis, 89.
 speciosus, 89.
Haplotrinchus, 54.
 cupreomaculatus, 54.
 inaequalis, 55.
 viridula, 55.
Harmonia, 35.
 octomaculata, 35.
 var. arcuata, 35.
 var. philippinensis,
 35.
 transversalis, 35.
Harpalinæ, 12.
Hasa hasa, 237.
Hectarthrum, 30.
 bistriatum, 30.
 brevifossum, 30.
 heros, 30.
 latum, 30.
Helopinæ, 73.
Hemerobiidæ, 205.
Hemerobius, 205.
Hemicera, 68.
 bivittata, 68.
 caudata, 68.
Hemiops, 66.
 semperi, 66.
Hemiptera, additions to the known Philippine
 Delphacidæ, 369.
Hemirrhaphes candezei, 228.
 cruciatus, 228.
 nigriceps, 228.
Henarrhodes, 126.
 macgregori, 126.
 littoralis, 184.
Hermes, 205.
Hesperus, 22.
 phaenomenalis, 22.
 roepkei, 22.
Heterobostrychus, 50.
 aequalis, 50.
 hamatipennis, 50.
 niponensis, 50.
 pileatus, 50.
Heteroceridæ, 41.

- Heterocerus*, 41.
 philippensis, 41.
Heteroclitomorpha, 114.
 simplex, 114.
Heteroderes, 61.
 drasterioides, 61.
 infuscatus, 61.
 minuscus, 61.
 multilineatus, 61.
 triangularis, 61.
Heteroglymma, 136.
 alata, 136.
Heteroneda, 37.
 billardieri, 37.
 reticulata, 37.
Heteroplia, 171.
Heteroplites, 126.
 erythroderes, 126.
Heterorrhina, 162.
 bimaculata, 162.
 confusa, 162.
 macleayi, 162.
 paupera, 162.
 pretiosa, 162.
 schadenbergi, 162.
 simillima, 162.
 versicolor, 162.
Heterotarsinae, 71.
Hippopsis, 116.
 camuripes, 116.
Hispinae, 99.
Hispodonta, 100.
 nigricornis, 100.
 semperi, 100.
 tarsata, 100.
Hispomorpha, 111.
 horrida, 111.
Hister, 28.
 faldermanni, 28.
 philippinarum, 28.
Histeridae, 28.
Holocynips, 284.
 nigra, 285.
Hololepta, 26.
 aequa, 26.
 batchiana, 26.
 elongata, 26.
 indica, 26.
 manillensis, 26.
Holotrichia, 179.
 barda, 179.
 bipunctata, 179.
 var. minor, 179.
 burmeisteri, 179.
 flachi, 179.
 latecostata, 179.
 mindanaona, 179.
 philippinica, 179.
 quadrangulata, 179.
 vidua, 179.
Homalocyrtus, 136.
Homonocea, 113.
 aliena, 113.
 bilinea, 113.
 fornicata, 113.
 longimana, 113.
Homonocea *pannosa*, 113.
 patrona, 113.
 praecisa, 113.
Hopea *sp.*, 187.
Hoplandria, 23.
 philippina, 23.
Hoplasoma, 90.
 philippinensis, 90.
 picefemora, 90.
Hoplia, 180.
 maculifera, 180.
 philippinensis, 180.
 simplex, 180.
Hoplionota, 95.
 bipunctata, 95.
 biramosa, 95.
 braueri, 95.
 chapuisi, 95.
 horrificata, 95.
 maculipennis, 95.
 taeniata, 95.
 undulata, 95.
 vittata, 95.
Hoplocerambyx, 104.
 morosus, 104.
 relictus, 104.
 spiniornis, 104.
Horia, 77.
 cephalotes, 77.
 maxillosa, 77.
Hormocerus, 126.
 scrobicollis, 126.
Hucus, 123.
 lineatocollis, 123.
Hybosoma, 32.
 hydropicum, 32.
 striatum, 32.
 tetrastichum, 32.
Hybosorinae, 161.
Hybris, 208.
Hydaticus, 14.
 bihamatus, 14.
 confusus, 14.
 duplex, 15.
 fabricii, 14.
 leveillei, 15.
 luzonicus, 14.
 macularis, 15.
 pacificus, 15.
 philippinensis, 15.
 rhantoides, 14.
 rufulus, 14.
 vittatus, 15.
 var. bipunctatus, 15.
Hydrocoptus, 13.
 scapularis, 13.
Hydromanicus *fasciatus*, 216.
Hydrophilidae, 40.
Hydrophilinae, 40.
Hydrophilus, 41.
 spiniornis, 41.
Hydroporinae, 12.
Hydropsyche, 215.
Hydropsychidae, 213.
Hydropsychinae, 214.

- Hydropsychodes, 215.
 costalis, 216.
- Hydroptilidae, 211.
- Hydrous, 40.
 picicornis, 40.
- Hydrovatus, 18.
 acuminatus, 18.
 badius, 18.
 consanguineus, 18.
 ferrugatus, 18.
 mallacae, 18.
 nigrita, 18.
 picipennis, 18.
 pumilus, 18.
 pusillus, 18.
- Hylesininae, 151.
- Hylobiinae, 189.
- Hymenoptera, Beitrag zur Kenntnis der Gattung Loboscelidia Westwood, 399.
 der Philippinen, 317.
 neue Stephanidae der Philippinen, 403.
- Hyperinae, 139.
- Hyphydrus, 12.
 xanthomelas, 12.
- Hypnoidus, 63.
 bakeri, 63.
- Hypocryphalus, 152.
 obscurus, 152.
 rotundus, 152.
 striatus, 152.
- Hypomeces, 127.
 suturalis, 127.
- Hypophloeus, 70.
 nalis, 70.
- Hypostenus, 19.
- Hypothenoides, 151.
 parvus, 151.
- Hypothenomus, 151.
 dipterocarpi, 151.
 webbi, 151.

I

- Ichthyurus, 44.
 dohrni, 44.
 scripticollis, 44.
 semperi, 44.
- Icthyodes, 114.
 biguttula, 114.
- Idorhynchus, 186.
 lugubris, 186.
- Idotasia, 145.
 paucisquamosa, 145.
- Iliornis horsfieldii, 274.
 stagnatilis, 274.
- Indalmus, 35.
 luzonicus, 35.
- Inoplectus, 30.
 beraneki, 30.
- Intempus, 24.
 euplectidum, 24.
 punctatissimus, 24.
- Ipidæ, 150.

- Ipomoea batatas, 184.
 pescaprae, 183.
 triloba, 183.
- Ipothalia, 107.
 femorata, 107.
- Iridotaenia, 52.
 cupreomarginata, 52.
 curta, 52.
 palawana, 52.
 sulcifera, 52.
 trivittata, 52.
- Isoptera, 196.
- Isopterus, 127.
 irrozatus, 127.
 scanthomerus, 127.
 signatus, 127.
- Isorhynchinae, 146.
- Ithyoprinae, 143.

J

- Jolo pearl beds, 246.

K

- Kham sit, 240.
- KIEFFER, J. J., Neuer Beitrag zur Kenntnis der philippinischen Cynipiden, 279; Beschreibung einer neuen Mymaride aus den Philippinen, 289; Evaniiden (Hymenoptera) der Philippinen, 317; Beitrag zur Kenntnis der Gattung Loboscelidia Westwood (Hymenoptera), 399; Neue Stephanidae (Hymenoptera) der Philippinen, 403.
- Kolbea, 197.
 bakeri, 201.

L

- Lacconectes, 14.
 oceanicus, 14.
- Laccophilinae, 13.
- Laccophilus, 13.
 baeri, 13.
 cingulatus, 13.
 parvulus, 13.
 var. decoratus, 14.
 ponticus, 14.
 proteus, 14.
 sharpi, 14.
 var. clarki, 14.
 transversalis, 14.
- Laccoptera, 97.
 luzonica, 97.
 manilensis, 97.
 ab. nigripennis, 98.
 novedecimnotata, 98.
 philippinensis, 97.
 tredecimgutta, 98.
- Lachnopterus, 105.
 aureipennis, 105.
 auripennis, 105.
 socius, 105.
- Laeon, 59.
 apodixus, 59.
 bakeri, 219.
 binodulus, 219.
 cervinus, 59, 219.
 dorcinus, 60, 219.

- Lacon intermedius*, 60.
molitor, 60.
piger, 220.
spureus, 60, 220.
trifasciatus, 60, 220.
Laedorusa plumosa, 274.
Laemosacinæ, 141.
Lagria, 74.
concolor, 74.
cribatula, 75.
fulgidipennis, 75.
hirticollis, 75.
ionoptera, 75.
prasinella, 75.
pruinosa, 75.
Lagriidae, 74.
Lagriinæ, 74.
Laius, 44.
pictus, 44.
Lamiinæ, 109.
Lampra, 55.
semperi, 55.
Lamprocerinæ, 42.
Lamprocorax panayensis, 267.
Lampyridæ, 42.
Lampyrinæ, 43.
Lanaphora, 377.
bakeri, 377.
Languriinæ, 31.
Laodia, 146.
lineata, 146.
tristis, 146.
Laogenia, 149.
dohrni, 149.
intrusa, 149.
Laparan pearl beds, 247.
Lapo-lapo, 237.
Lariidæ, 79.
Lasioderma, 48.
breve, 49.
rufescens, 49.
serricorne, 48, 188.
testaceum, 49.
Lathrobium, 20.
caffrum, 20.
pallens, 21.
prolatum, 20.
pulchellum, 20.
seriatum, 21.
testaceum, 21.
unicolor, 21.
Law protecting marine mollusca, 259.
Lebiinæ, 10.
Leis, 37.
dimidiata, 37.
ab. bicolor, 37.
dunlopi, 37.
manillana, 37.
var. atrocincta, 37.
var. incompleta, 37.
var. mniszehi, 37.
paulinae, 37.
Lema, 80.
cyanoptera, 80.
femorata, 80.
Lema semperi, 80.
torulosa, 80.
Lemon silvestre, 186.
Leontium, 106.
thalassinum, 106.
Lepidiotia, 178.
blanchardi, 178.
corpulenta, 178.
munda, 178.
philippinea, 178.
pruinosa, 178.
punctum, 178.
Leptaulacides, 156.
palawanicus, 156.
planus, 156.
Leptaulacinæ, 156.
Leptaulax, 155.
bicolor, 155.
dentatus, 155.
differentispina, 155.
var. subsequens, 155.
eschschoitzii, 156.
manillae, 156.
separandus, 156.
var. maxillonotus, 156.
timoriensis, 156.
Leptocella bakeri, 213.
Leptoceridæ, 212.
Leptocerus, 213.
Lesticus, 9.
gregori, 9.
insignis, 9.
philippinicus, 9.
prasinus, 9.
Leucopholis, 178.
fontainei, 178.
irrorata, 179.
var. pulverulenta, 179.
jacquinoti, 179.
var. sulwana, 179.
pollens, 179.
pollinosa, 179.
semperi, 179.
simillima, 179.
Leucotreron marchei, 269.
merrilli, 269.
Liburnia, 385.
puella, 385.
Limosa horsfieldii, 274.
Lindinia, 83.
corrugata, 83.
fulva, 83.
fusco-nigra, 83.
lefevrei, 83.
pictarsis, 83.
reflexo-aenea, 83.
tibialis, 83.
ab. nigripes, 83.
Lioptera, 10.
quadriguttata, 10.
Liopteroninæ, 286.
Liopygus, 27.
diopsipygus, 27.

- Lispinus*, 17.
 bakeri, 17.
 filiformis, 18.
 fulvus, 17.
 impressicollis, 18.
 nitidipennis, 18.
 quadratus, 18.
Lissochila, 99.
Litocerus, 122.
 gemellus, 122.
 inermis, 122.
 paviei, 122.
 philippinensis, 122.
 plagiatus, 122.
Lixus, 138.
 confusus, 138.
 luzonicus, 139.
 ritsemæ, 139.
 vetula, 139.
Lobalog, 188.
Loboscelidia, 399.
 defecta, 401.
 inermis, 399.
 rufescens, 399.
Lobotrachelus, 146.
 gentilis, 146.
 subfasciatus, 146.
Longitarsus, 93.
 manillensis, 93.
Lophocateres, 29.
 africanus, 29.
 pusillus, 29.
 yvani, 29.
Lophocnemis, 74.
 amabilis, 74.
Lucanidæ, 156.
Luciola, 43.
 abdominalis, 43.
 angusticollis, 43.
 apicalis, 43.
 extincta, 43.
 infuscata, 43.
 rugiceps, 43.
 truncata, 43.
 vespertina, 43.
Luciolinæ, 43.
Ludigenus, 65.
 politus, 65.
Ludius, 65.
 germanus var. a, 231.
 hirsutus, 65, 231.
Lumbanac, 237.
Lumetus, 41.
Luperomorpha, 93.
 serricornis, 93.
Lutera, 176.
 nigromaculata, 176.
Lutianidæ, 237.
Luzonicus, 232.
 bakeri, 232.
Lycidæ, 42.
Lycopersicum esculentum, 185.
Lymexylonidæ, 48.
Lyprops, 71.
 luzonicus, 71.
Lyterius, 146.
 instabilis, 146.
Lyttidæ, 77.

M

Machlotes, 182.
 incisus, 182.
Mackerels, 236.
Macratia, 77.
 bicincta, 77.
 pubescens, 77.
 pygmaea, 77.
Macrocyrtus, 132.
 castaneus, 132.
 contractus, 132.
 erosus, 132.
 impressipennis, 132.
 negrito, 132.
 nigrans, 132.
 var. *castanopterus*, 132.
 sculptus, 132.
 subcostatus, 132.
Macrolinæ, 154.
Macrolinus, 154.
 duivenbodei, 154.
 latipennis, 155.
 weberi, 155.
Macronema bella, 214.
Macronematinae, 214.
Macronota, 163.
 abdominalis, 163.
 alboguttata, 163.
 auroguttata, 164.
 domina, 163.
 flavopunctata, 163.
 flavosignata, 164.
 gratiosa, 164.
 guttulata, 164.
 jucunda, 164.
 lugubris, 164.
 lutuosa, 164.
 subsp. *palawanica*, 164.
 mindanaensis, 164.
 philippinensis, 164.
 pilosa, 164.
 propinqua, 164.
 regia, 164.
 var. *bicolor*, 164.
 var. *fraterna*, 164.
 sculpticollis, 164.
 setosa, 164.
 sponsa, 164.
 tricolor, 164.
 vidua, 164.
Macroscythos, 59.
 balabakensis, 59.
Macrosiagon, 77.
 nasutum, 77.
Macrostoma, 102.
 absurda, 102.
 aegrota, 102.
 celebensis, 103.
 crenata, 102.

- Macrotoma inscripta*, 102.
 luzonum, 103.
 signaticollis, 102.
Madarinæ, 146.
Malachus, 44.
 rufiventris, 44.
Malais, 174.
 thoracica, 174.
Malanoxanthus luzonicus, 225.
Malaxa, 372.
 acutipennis, 372.
Mangagat, 237.
Mangifera indica, 185.
Manomano, 240.
Mantispa annulicornis, 208.
 enderleini, 208.
 luzonensis, 208.
 manca, 208.
Mantispidae, 207.
Margadilao, 186.
Margadillius, 152.
 confusus, 152.
 erythrinae, 152.
 margadilaonis, 152.
 minutus, 152.
Margaritifera margaritifera, 252.
 martensi, 252.
 maxima, 245, 252.
 MCGREGOR, RICHARD C., New or noteworthy Philippine birds, 269.
Mecistocerus, 143.
 mollis, 143.
Mecocerina, 122.
 xenoceroidea, 122.
Mecocerus, 121.
 basalis, 121.
 gibbifer, 121.
 guttata, 121.
 subsp. *jordani*, 121.
 philippinensis, 121.
Mecoptera, 211.
Mecopus, 145.
 bakeri, 145.
 bispinosus, 145.
 hopei, 145.
Mecotropis, 121.
 coelestis, 121.
 nigropictus, 121.
 samarensis, 121.
 spilonsa, 121.
 whiteheadi, 121.
Mecynotarsus, 78.
 baeri, 78.
 humeralis, 78.
Medon, 20, 180.
 bakeri, 180.
 luzonicus, 180.
 philippinus, 20.
Megalopinae, 81.
Megaloptera, 205.
Megaloxantha, 51.
Megamelus, 384.
 proserpina, 384.
Megapenthes, 62.
 angulosus, 62, 222.
 congestus, 62.
 diploconoides, 62.
 fulvus, 62, 222.
 inconditus, 62, 222.
 inflatus, 62, 222.
 junceus, 62, 222.
 luzonicus, 62, 222.
 maceratus, 62, 222.
 nigricornis, 62.
 opacipennis, 62.
Megapyga, 96.
 caeruleomaculata, 96.
 eximia, 96.
 terminalis, 96.
Megarrhinus, 141.
 suratus, 141.
Megopis, 103.
 angustata, 103.
 cingalensis, 103.
Melambia, 29.
 cordicollis, 29.
Melanactes, 232.
Melanesia, 369.
 brevipennis, 370.
 granulata, 369.
 luzonensis, 370.
 pacifica, 370.
Melanhyphus, 169.
 semivelutinus, 169.
Melanotus, 64.
 abeninus, 64.
 ebeninus, 231.
 interjectus, 65.
 phlogosus, 65.
 pisciculus, 65.
 scribanus, 65, 231.
 var. *bakeri*, 231.
Melanoxanthus, 62.
 affinis, 62, 225.
 approximatus, 62, 222.
 ater, 62, 225.
 bakeri, 62, 223.
 bicinctus, 226.
 bicolor, 224.
 bipartitus, 62.
 bitriplex, 224.
 butuanus, 226.
 cinctus, 224.
 comes, 62.
 crucifer, 62, 224.
 cuneolus, 223.
 decemguttatus, 62.
 dorsatus, 223.
 exclamationis, 63.
 frictus, 226.
 hemionus, 63, 222.
 infimus, 63, 225.
 infuscatus, 225.
 luzonicus, 63.
 melanocephalus, 63.
 militaris, 223.
 minutus, 63, 225.
 nitidicollis, 223.

- Melanoxanthus palliatus, 63.
 philippinensis, 223.
 promecus, 63.
 quadrinotatus, 224.
 recreatus, 63.
 rhomboidalus, 63.
 sexguttatus, 63.
 sextus, 63, 223.
 singularis, 63.
 taeniatus, 226.
 terminatus, 63.
 vicinus, 225.
 zebra, 63, 222.
- Melasidæ (Coléoptères) des îles Philippines
 récoltés par C. F. Baker, 387.
- Melibæus, 56.
 aeneifrons, 56.
 bakeri, 56.
- Melolontha, 179.
 manilarum, 179.
 serrulata, 179.
- Melolonthinæ, 176.
- Melyridæ, 44.
- Menippus, 89.
 philippinensis, 89.
 viridis, 89.
- Meristhus, 60.
 nigritulus, 60, 220.
- Mesomorpus, 66.
 asperulus, 66.
 dermestoides, 66.
 dispersus, 66.
 mustelinus, 66.
 puberulus, 66.
 villiger, 66.
- Mesotermitidæ, 352.
- Metabelus, 31.
 borrei, 31.
- Metallactulus, 158.
 parvulus, 158.
- Metapocyrtus, 132, 134.
 acutipennis, 135.
 adspersus, 135.
 albodecoratus, 134.
 asper, 133.
 astriger, 132.
 bakeri, 133.
 bamballo, 134.
 bifasciatus, 132.
 var. aurora, 162.
 biapinosus, 135.
 bituberosus, 134.
 brevicollis, 134.
 chevrolati, 135.
 coeruleonotatus, 133.
 concinus, 135.
 conicus, 136.
 cuneiformis, 135.
 cylas, 134.
 derasocobaltinus, 132.
 derasus, 134.
 difficilis, 134.
 dives, 135.
 dolosus, 134.
 elegans, 134.
 erichsoni, 134.
 femoralis, 135.
 figuratus, 134.
 geniculatus, 132.
 germari, 135.
 gibbicollis, 135.
 gibbistrotris, 134.
 glaberrinus, 135.
 graniferus, 135.
 harpago, 136.
 hopei, 133.
 humeralis, 132.
 immeritus, 135.
 impicus, 134.
 intermittens, 136.
 interruptolineatus, 134.
 lenis, 133.
 longipes, 134.
 macgregori, 134.
 marginenodosus, 136.
 metallicus, 133.
 var. laevicollis, 133.
 var. sphenomorphoides, 133.
 var. suavis, 133.
 midas, 133.
 mimicus, 133.
 miser, 135.
 nanus, 135.
 opulentus, 134.
 pachyrhynchoides, 133.
 pardalis, 132.
 picipennis, 134.
 picticollis, 134.
 politissimus, 134.
 politus, 133.
 profanus, 136.
 pseudomonilifer, 134.
 pulverulentus, 136.
 puncticollis, 134.
 quadricinctus, 136.
 quadrilagiatus, 133.
 quadrulifer, 133.
 quaduordecimpunctatus, 133.
 regalis, 133.
 repandicauda, 134.
 rufescens, 136.
 ruficollis, 136.
 rufipes, 135.
 rugicollis, 135.
 scabiosus, 135.
 schönherri, 133.
 smaragdulus, 133.
 sparsus, 136.
 spinipes, 136.
 striatus, 135.
 subcuneiformis, 136.
 subfasciatus, 135.
 subquadrulifer, 133.
 tenuipes, 135.
 triangularis, 133.
 tumidosus, 136.
 tumordorsum, 133.
 virens, 133.
 virgatus, 135.
 viridulus, 135.

- Metatermitidae, 354.
 Metialma, 145.
 naevia, 145.
 obsoleta, 145.
 Metopiestes, 182.
 tubulus, 182.
 Metopodontus, 157.
 astericus, 157.
 occipitalis, 157, 298.
 suturalis, 157.
 Metriona, 98.
 catenata, 98.
 ab. fulgida, 98.
 circumdata, 98.
 luzonica, 98.
 manilensis, 98.
 quinquemaculata, 98.
 recondita, 98.
 trivittata, 99.
 ab. baeri, 99.
 Metriorrhynchus, 42.
 philippinensis, 42.
 Micrencaustes, 32.
 octopustulata, 32.
 Microcerotermes, 365.
 los-banosensis, 365.
 Microlophia, 115.
 dentipes, 115.
 eximia, 115.
 fausta, 115.
 ignava, 115.
 newmani, 115.
 notha, 115.
 ocellifera, 115.
 pellucida, 115.
 semperi, 115.
 Micromus pusillus, 205.
 Microprius, 181.
 opacus, 181.
 Micropus, 274.
 Microphagus bakeri, 397.
 dilutus, 397.
 magnicornis, 397.
 minimus, 398.
 Microxyctes, 169.
 monodon, 169.
 Microserica, 177.
 abbreviata, 177.
 fugax, 177.
 humilis, 177.
 liangensis, 177.
 mindoroana, 177.
 negrosiana, 177.
 oceana, 177.
 palawana, 177.
 samarana, 177.
 semperi, 177.
 Mimastra, 91.
 brevicollis, 91.
 elegans, 91.
 parva, 91.
 semimarginata, 91.
 var. latimanus, 91.
 terminata, 92.
 Mimela, 174.
 blumei, 174.
 maculicollis, 174.
 palawana, 174.
 Mimomorpha, 116.
 clytiformis, 116.
 Mindana, 92.
 apicallis, 92.
 cyanipennis, 92.
 dimidia, 92.
 femoralis, 92.
 nigripes, 92.
 ruficollis, 92.
 vittata, 92.
 Mindanao, pearl beds of, 248.
 sea products of Sulu and, 235, 245.
 Minyrus, 141.
 exaratus, 141.
 Miscelus, 10.
 paradoxus, 10.
 Mixornis cagayanensis, 275.
 Moamia, 237.
 Monochirus, 101.
 callicanthus, 101.
 moestus, 101.
 perroteti, 101.
 Monocrepidius philippinensis, 221.
 Monolepta, 90.
 baeri, 90.
 bifasciata, 90.
 bifoveolata, 90.
 concolor, 90.
 cumingi, 90.
 cyanipennis, 90.
 elegantula, 91.
 haemorrhoidalis, 91.
 hieroglyphica, 91.
 ab. simplex, 91.
 palawana, 91.
 puncticollis, 91.
 rubrosignata, 91.
 Monomma, 76.
 philippinarum, 76.
 pilosum, 76.
 quadrinaculatum, 76.
 Monommidae, 76.
 Monopausus, 291.
 piceus, 291.
 Monophlebus sp., 185.
 Moraceamus, 119.
 cosmopolita, 119.
 ustulata, 119.
 Mordella, 77.
 decemguttata, 77.
 Mordellidae, 77.
 Morio, 9.
 angustus, 9.
 intermedius, 9.
 luzonicus, 9.
 Morioninae, 9.
 Morphosphaera, 88.
 impunctata, 88.
 perigrina, 88.
 Morus alba, 186.
 Mugilidae, 237.

- MUIR, FREDERICK, A new Formosan *Purohita* (Delphacidae), 311; Additions to the known Philippine Delphacidae (Hemiptera), 369.
- Mullets, 237.
- Mycteis, 123.
marginicollis, 123.
- Myllaena, 23.
apicalis, 23.
- Myllocerus, 138.
interruptus, 138.
- Mymaride aus den Philippinen, Beschreibung einer neuen, 289.
- Myopsocus, 199.
bakeri, 199.
enderleini, 199.
- Myrmeleon, 209.
angustipennis, 209.
capito, 210.
celebesensis, 210.
freyeri, 210.
solers, 210.
tenuipennis, 209.
- Myrmeleonidae, 209.
- N
- Nacrea, 91.
philippina, 91.
- Nancita, 91.
alterna, 91.
- Nanophyes, 141.
discoidalis, 141.
neuter, 142.
proles, 142.
varicolor, 142.
- Nanophyinae, 141.
- Nanoplaxes, 146.
merrillii, 146.
- Nauphaeus, 145.
linearis, 145.
sexmaculatus, 145.
simius, 145.
- Nausibius, 30.
dentatus, 30.
intermedius, 30.
parallelus, 30.
- Neaspis, 29.
squamata, 29.
- Necrobia, 48.
rufipes, 48.
- Necrophorus, 26.
ocellatus, 26.
- Nematidium, 182.
angustatum, 182.
posticum, 182.
- Nematodes incertus, 398.
- Nemopterus, 139.
picus, 139.
- Nemostira, 76.
marginata, 76.
melanura, 76.
var. atripennis, 76.
- Neobisnius, 22.
longulus, 22.
praelongus, 22.
- Neocollyris, 4.
- Neogria, 75.
concolor, 75.
- Neohydnius, 47.
pallipes, 47.
- Neolanguria, 31.
filiformis, 31.
nigripes, 31.
rufotestacea, 31.
testacea, 31.
- Neolepidostoma, 212.
- Neoperla, 203.
clarissa, 203.
obliquus, 203.
recta, 203.
- Neopharsalia, 111.
vagans, 111.
- Neopyrgops, 137.
albovaria, 137.
banksi, 137.
- Neoserica, 177.
balabaca, 177.
lucifuga, 177.
uncinata, 177.
- Neptosternus, 14.
hydatioides, 14.
- Nericonia, 103.
glabricollis, 103.
- Nessiara, 123.
histrio, 123.
robusta, 123.
sellata, 123.
variegata, 123.
- Nesting of the Philippine glossy starling, 267.
- Neuroptera, 205.
- Neuropteroid insects of the Philippine Islands, 195.
- Nigidius, 159.
baeri, 159.
bonneuilli, 159.
forcipatus, 159.
laevicollis, 159, 298.
taurus, 159.
- Nipa fruticans, 271.
- Niphades, 139.
pardalotus, 139.
- Nisotra, 92.
gemella, 92.
- Nitidulidae, 29, 313.
- Nitidulinae, 29.
- Nodostoma, 81.
binotatum, 81.
cryptopus, 82.
cumingi, 82.
janthinum, 82.
philippinense, 82.
semperi, 82.
thoracicum, 82.
- Normanbya merrillii, 184.
- Nortia, 103.
cavicolis, 103.
- Noserius, 103.
tibialis, 103.
- Notanatomica magna, 213.
opposita, 213.
- Noterinae, 13.

- Nothapocerytus, 132.
 cylindricollis, 132.
 erythromerus, 132.
 translucidus, 132.
- Nothochrysa, 206.
 aqualis, 206.
 evanescens, 206.
- Notiobiella affinis, 206.
- Nulodorum [Melodorum?] fulgens, 188.
- Nyctimene, 113.
 vittata, 113.
- Nyctiophylax tagalensis, 216.
- O
- Oberea, 119.
 albocuspis, 119.
 balineae, 119.
 demissa, 119.
 erythrostroma, 119.
 flavoterminalis, 119.
 macilenta, 119.
 makilingi, 120.
 melanostoma, 120.
 micholitzii, 120.
 mimetica, 120.
 punctiventris, 120.
 quianga, 120.
 schadenbergi, 120.
 seminigra, 120.
- Ocalemia, 106.
 prasina, 106.
- Ochtepentina, 203.
- Odacanthinae, 10.
- Odonata, 196.
- Odontochila, 6.
 melanopyga, 6.
 rothschildi, 6.
- Odontolabinae, 156.
- Odontolabis, 156.
 alces, 156, 298.
 var. minor, 156.
 bellicosus var., 156.
 camelus, 156, 298.
 carinatus, 156.
 celebensis, 156.
 cumingi, 156.
 dejeani, 157.
 dux, 156.
 fratellus, 156.
 gouberti, 156.
 gracilis, 156.
 intermedius, 156.
 latipennis, 157, 298.
 tarandus, 157.
- Odosyllis, 144.
 intricata, 144.
 mindanaoensis, 144.
- Oecetina sp., 213.
- Oecetina confuens, 213.
- Oedemates, 72.
 physopterus, 72.
 pretiosus, 72.
 purpuratus, 72.
 varicolor, 72.
 viridulus, 72.
- Oestropsyche vitrina, 214.
- Oethaloptera, 214.
- Oh ku sit, 241.
- Oh sit, 241.
- Oides, 86.
 elliptica, 86.
 flavida, 86.
 marcida, 86.
 philippinensis, 87.
 quadriguttata, 87.
 sternalis, 87.
 subtilissima, 87.
 tibialis, 87.
 vexilla, 87.
- Oleneceamptus, 113.
 bilobus, 113.
 optatus, 113.
 saundersi, 197.
 serratus, 113.
 sexnotatus, 113.
- Omadius, 46.
 aurifasciatus, 46.
 indicus, 46.
 kamelianus, 46.
 modestus, 47.
 nimbifer, 46.
 notatus, 47.
 posticalis, 47.
 prolixus, 46.
 trifasciatus, 47.
 vespiformis, 47.
- Omoglymmius, 16.
- Omotemnus, 147.
 haemorrhoidalis, 147.
 var. pygidialis, 147.
- Ommatolampus, 147.
 paratasiodes, 147.
 whiteheadi, 147.
- Omphasus, 141.
 mansuetus, 141.
- Oncocephala, 100.
 bicristata, 100.
- Onitis, 160.
 phartopus, 160.
- Onthophagus, 160.
 q
 - babirusa, 160.
 - batillifer, 160.
 - carinulatus, 160.
 - luzonicus, 160.
 - praedatus, 160.
 - semicupreus, 160.
 - simulans, 160.
 - terminatus, 160.
 - verticalis, 160.
- Ontobaris, 146.
 tarda, 146.
- Ontocteterus, 141.
 scutellaris, 141.
- Opatrinæ, 66.
- Ophionea, 10.
 cyanocephala, 10.
- Opilo, 46.
 mollis, 46.
- Orectochilinae, 16.

- Orectochilus*, 16.
 acuductus, 16.
 baeri, 16.
 discus, 16.
 oberthürli, 16.
 palawanensis, 16.
 pulchellus, 16.
Orochlesis, 144.
 annularis, 144.
Orphnebius, 181.
 luzonicus, 181.
Ortalia, 39.
 pusilla, 39.
 ab. moesta, 39.
Orthocyrus, 183.
Orthogoninae, 11.
Orthogonius, 11.
 alternans, 11.
 hypocrita, 11.
 luzonicus, 11.
 philippinensis, 11.
Orthotomus cineraceus, 275.
Orychodes, 126.
 splendens, 126.
 striolatus, 126.
Oryctes, 170.
 gnu, 170.
 rhinoceros, 170.
 trituberculatus, 170.
 OSHIMA, MASAMITSU, A collection of termites from the Philippine Islands, 851.
Osorius, 19.
 strigiventris, 19.
Osphilia, 145.
 coturnia, 145.
Ostedes, 217.
 pauperata, 117.
Ostominae, 29.
Otarionomus, 110.
 ilocanus, 110.
Otidognathus, 147.
 elegans, 147.
 subsp. serioplagia, 147.
 fulvopictus, 147.
 westermanni, 147.
Otiorrhynchinae, 187.
Oxynopterus, 61.
 audouini, 61, 221.
 cumingi, 61, 221.
 flabellicornis, 221.
 javanus, 221.
 mucronatus, 61, 221.
Oxypygus, 148.
 exclamationis, 148.
Oxytelinae, 17.
Oxytelus, 18, 180.
 advena, 18.
 bakeri, 180.
 celebensis, 18.
 lucena, 18.
 megaceros, 18.
 var. flavicollis, 18.
 nitidifrons, 18.
Oyster, the Philippine pearl, 245.
Ozomena, 92.
 costata, 92.
 incostata, 92.
 weberi, 92.
Ozopemon, 152.
 dipteroearpi, 152.
 laevis, 152.
 major, 152.
 parinari, 153.
Ozotomerus, 124.
 discoidalis, 124.
 P
Pachnephorus, 85.
 bistriatus, 85.
 convexicollis, 85.
 impressus, 85.
Pachycorynus, 21.
 ceylanensis, 21.
 cinctus, 21.
 dimidiatus, 21.
Pachyderes africanus, 232.
 bengalensis, 232.
 niger, 232.
Pachymerus, 79.
 chinensis, 79.
 dominicanus, 79.
 quadrifaculatus, 79.
 scutellaris, 79.
Pachyparnus, 40.
 talpoides, 40.
Pachypeza, 116.
 trivittata, 116.
Pachyrrhynchinae, 127.
Pachyrrhynchus, 127.
 albuguttatus, 130.
 anellifer, 127.
 annulatus, 127.
 anulatus, 127.
 argus, 127.
 auroguttatus, 129.
 chevolati, 127.
 var. chlorolineatus, 127.
 var. concinnus, 127.
 var. jagori, 127.
 var. mandarinus, 127.
 chlorites, 128.
 circulatus, 128.
 circulifer, 130.
 coerulans, 128.
 confinis, 129.
 congestus, 128.
 croesus, 128.
 cumingi, 128.
 decussatus, 128.
 dohrni, 128.
 elegans, 128.
 eques, 128.
 erichsoni, 128.
 var. chrysocompus, 128.
 eschschoitzii, 128.
 fahraei, 128.

- Pachyrrhynchus* *fimbriatus*, 130.
flavomaculatus, 129.
flavopunctatus, 129.
forsteni, 128.
gemmans, 128.
 var. ardens, 128.
gemmaus, 129.
 var. atratus, 129.
globulipennis, 128.
gloriosus, 129.
ignipes, 129.
immarginatus, 129.
inclytus, 129.
infernalis, 129.
inornatus, 130.
jugifer, 129.
lacunosus, 129.
latifasciatus, 129.
lorquinii, 129.
luteoguttatus, 128.
modestior, 129.
 var. apicalis, 129.
möllendorffi, 129.
monilifer, 129.
 var. stellulifer,
 129.
morio, 129.
morotaiensis, 129.
multipunctatus, 129.
nobilis, 130.
ochroplagiatus, 130.
orbifer, 180.
perpulcher, 130.
phaleratus, 130.
pinorum, 130.
 var. dimidiatus,
 130.
 var. transversalis,
 130.
pretiosus, 128.
psittacinus, 130.
pulchellus, 130.
purpureus, 130.
reticulatus, 130.
rhodopterus, 129.
roseomaculatus, 130.
rufopunctatus, 131.
rugicollis, 130.
 var. crucifer, 130.
rutilans, 128.
sacritis, 131.
sanchezi, 131.
schönherri, 131.
scintillans, 128.
semperi, 131.
smaragdinus, 131.
 var. carnosus,
 131.
 var. purpurascens, 131.
speciosus, 131.
stellio, 131.
striatus, 131.
subcostatus, 130.
tristis, 131.
venustus, 131.
- Pachyrrhynchus* *viridans*, 131.
waltoni, 131.
waterhousei, 129.
- Paederus*, 19.
 aestuans, 20.
 alternans, 19.
 angolensis, 20.
 breviceps, 20.
 chilensis, 19.
 corsicus, 20.
 cyancephalus, 19.
 erichsoni, 20.
 fennicus, 20.
 fuscipes, 20.
 var. peregrinus, 20.
 idae, 20.
 indicus, 19.
 intermedius, 20.
 longipennis, 20.
 philippinus, 20.
 riparius, 20.
 ruficoxis, 19.
- Paepalosomus*, 139.
 dealbatus, 139.
 pistrinarius, 139.
- Pagellia*, 82.
 acuticosta, 82.
 foveolata, 82.
 signata, 82.
 suturalis, 82.
- Pagiophloeus*, 139.
 schultzei, 139.
- Palaminus*, 19.
 pennifer, 19.
 philippinus, 19.
- Palingenia*, 204.
- Pandanus tectorius*, 133.
- Pangutarang pearl beds*, 248.
- Paraglenurus*, 209.
- Parallelostethus*, 65.
 conicipennis, 65.
- Paranagrus*, 384.
- Parandra*, 102.
 janus, 102.
- Parastasia*, 175.
 bipunctata, 175.
 canaliculata, 175.
 confluens, 175.
 degenerata, 175.
 discolor, 175.
 indica, 175.
 nigriceps, 176.
 nigroscutellata, 176.
 nonfriedi, 176.
 pileus, 175.
 rubrotessellata, 175.
 rugosicollis, 175.
 scutellaris, 175.
 westwoodi, 176.
- Parastephanellus*, 405.
 polychromus, 405.
 var. coriacea,
 407.
- Parevania*, 317.
 atra, 318.

- Parevania nitida*, 317.
 rubra, 318.
Parimera, 141.
 negrito, 141.
 var. *variabilis*, 141.
 obscura, 141.
 trivittata, 141
Parinarium sp., 186.
Parmaschema, 33.
 nodimargo, 33.
Paromalus, 28.
 oceanitis, 28.
Passalidae, 154.
Passandra, 30.
 blanchardi, 30.
Paussidae, 26, 291.
Paussinae, 292.
Paxillinae, 155.
Paxilloides, 155.
 philippinensis, 155.
 schmidti, 155.
 Pearl farming, 251.
 Pearl oyster, Philippine, 245.
 Pearling fleet, 254.
 Pearls, 245.
Pediris, 70.
 longipes, 70.
 sulcigera, 70.
Peh sit, 240.
Pelargoderus, 109.
 alcanor, 109.
Pelops, 155.
 gravidus, 155.
Pempheres, 145.
 affinis, 145.
 habena, 145.
Penthornis luzoniensis, 274.
Peregrinus, 384.
 maidis, 384.
Pericalus, 11.
 undatus, 11.
Perigona, 10.
 luzonica, 10.
Perissus, 107.
 scutellatus, 107.
Perkinsiella, 378.
 amboinensis, 379.
 bakeri, 379.
 bicoloris, 380.
 fuscipennis, 380.
 graminicida, 381.
 lineata, 380.
 pseudosinensis, 381.
 saccharivora, 379.
 sinensis, 380.
 vastatrix, 378.
Petalophora, 182.
 brevimana, 182.
Phacalastor koebelei, 385.
Phaeochrotes, 122.
 porcellus, 122.
Phaederinae, 19.
Phaedimus, 162.
 cumingi, 162.
 jagori, 162.
Phaedimus mohnikei, 162.
 var. *minor*, 162.
 wittei, 162.
Phaedroides, 82.
 philippinensis, 82.
Phaenochilus, 38.
 monostigma, 38.
Phaenomerus, 149.
 nebulosus, 149.
 notatus, 149.
 sundevalli, 149.
Phaeochrous, 161.
 alternatus, 161.
 emarginatus, 161.
 hirtipes, 161.
 indicus, 161.
 philippinensis, 161.
 sumatrensis, 161.
Pharsalia, 110.
 agenor, 110.
 truncatipennis, 111.
Phaulimia, 123.
 alternata, 123.
Pheidole, 292.
Pheropsophus, 11.
 emarginatus, 11.
 fumigatus, 11.
 fuscicollis, 11.
 var. *ambiguus*, 11.
 girionieri, 11.
Philanthaxia, 55.
 cupricauda, 55.
 lata, 55.
Philonthus, 22, 180.
 aeneipennis, 22.
 bellus, 22.
 cinctipennis, 22.
 circumductus, 22.
 convexus, 22.
 densiventris, 180.
 erythropus, 22.
 flavipes, 22.
 lewisius, 22.
 longicornis, 22.
 notabilis, 22.
 paederoides, 22.
 quisquiliarius, 22.
 sublaevis, 180.
 supra, 22.
 thermarum, 22.
Phloeobius, 124.
 albescens, 124.
 alternans, 124.
 pallipes, 125.
Phloeotrupinae, 150.
Phrixia, 50.
 cumingi, 50.
 vittaticollis, 50.
Phyllodinus, 383.
Phyllotreta, 93.
 cumingi, 93.
 decora, 93.
 elongatula, 93.
 prolixa, 93.

- Physodera, 10.
 dejeanii, 10.
 Phytorus, 85.
 cyclopterus, 85.
 fervidus, 85.
 gibbosus, 85.
 latus, 85.
 lineolatus, 85.
 nigripes, 85.
 plebejus, 85.
 puncticollis, 85.
 Phytoscapus, 138.
 articollis, 138.
 Pilsa pearl beds, 248.
 Pindong, 240.
 Pinophilus, 19, 181.
 insignis, 19.
 javanus, 19.
 pallipes, 19.
 philippinus, 181.
 Pinus insularis, 184.
 Piperius, 152.
 pini, 152.
 Pithitis, 304.
 Plaesius, 26.
 javanus, 26.
 Plagiodera, 86.
 aerea, 86.
 Plagiusa, 181.
 Planodes, 110.
 quaternarius, 110.
 schultzei, 110.
 Plastus, 17.
 Plastystethus spectabilis, 18.
 Platalea minor, 271.
 Platolenes, 73.
 rufipes, 73.
 Platybrachus, 383.
 Platycrepis, 72.
 violaceus, 72.
 Platydemia, 68.
 annamitum, 68.
 Platylister, 27.
 Platynaspis, 38.
 nigra, 38.
 Platynectes, 14.
 decempunctatus, 14.
 var. semperi, 14.
 Platyninae, 9.
 Platynus, 9.
 lactus, 9.
 Platypodidae, 154.
 Platypria, 102.
 ferruginea, 102.
 longispina, 102.
 subopaca, 102.
 Platypus, 154.
 jansonii, 154.
 lepidus, 154.
 philippinensis, 154.
 schultzei, 154.
 setaceus, 154.
 turbatus, 154.
 Platysoma, 27.
 abruptum, 27.
 bifossopygum, 27.
 charrali, 27.
 confueci, 27.
 corticinus, 27.
 gorhami, 27.
 humilis, 27.
 lucifugus, 27.
 luzonicum, 28.
 ovatum, 27.
 striatiderum, 27.
 uniforme, 28.
 Platystethus, 18.
 Platyxantha, 92.
 basalis, 92.
 punctata, 92.
 suturalis, 92.
 Plecoptera, 196, 203.
 Plectrone, 163.
 barrotiana, 163.
 nigrocaerulea, 163.
 Plesiofornax, 393.
 Plintheria, 122.
 convexa, 122.
 Plocaederus, 104.
 fulvicornis, 104.
 pruinosis, 104.
 ruficornis, 104.
 Plocia, 116.
 mixta, 116.
 notata, 116.
 Poccilophana, 168.
 ochroplagiata, 168.
 Polycatus, 137.
 aurofasciatus, 137.
 eupholoides, 137.
 Polycentropus, 215.
 Polycetes, 51.
 igorota, 51.
 Polymitarceus, 204.
 Polymorphanisus semperi, 214.
 Polynema loriger, 289.
 Polyphaga, 17.
 Polyphida, 108.
 monticola, 108.
 Polyploctropus sp., 216.
 Pompano, 237.
 Popillia, 175.
 aemula, 175.
 cetrata, 175.
 conopyga, 175.
 depressa, 175.
 depressiuscula, 175.
 megregori, 175.
 mutans, 175.
 var. relucens, 175.
 oculata, 175.
 picticollis, 175.
 scalpta, 175.
 var. caeca, 175.
 var. microps, 175.
 variabilis, 175.
 Porgies, 237.
 Porocterus, 143.
 bengueticus, 143.
 Poteriphorus, 148.
 congestus, 148.
 imperatrix, 148.

- Pothyne, 116.
 capito, 116.
 Praonetha, 114.
 bigibbera, 114.
 camura, 114.
 commixta, 114.
 digesta, 115.
 hybrida, 115.
 ignobilis, 115.
 imbuta, 115.
 immista, 115.
 jacta, 115.
 vitticollis, 115.
 Premna integrifolia, 187.
 odorata, 187.
 Prinocerus, 44.
 coeruleipennis, 44.
 forticornis, 44.
 Priochirus, 17.
 currani, 17.
 luzonicus, 17.
 manilensis, 17.
 philippinus, 17.
 schultzei, 17.
 Prioninae, 102.
 Prionomerinae, 141.
 Prioptera, 96.
 binotata, 96.
 decemnotata, 96.
 immaculata, 96.
 var. fuscopunctata, 96.
 latissima, 96.
 octopustulata, 96.
 palawanica, 96.
 quadrisignata, 96.
 schultzei, 96.
 sinuata, 96.
 ab. deficiens, 96.
 Pristilophus, 65.
 luzonicus, 65.
 Prodiocetes, 147.
 flavolineatus, 147.
 nigrocinctus, 148.
 rubrovittatus, 148.
 Promecotheca, 100.
 apicalis, 100.
 cumingi, 100.
 cyanipes, 100.
 octostriata, 100.
 scorpio, 100.
 Prophthalmus, 125.
 tricolor, 125.
 Prosevania, 333.
 brevithorax, 340.
 collaris, 342.
 dolichogaster, 337.
 var. arcuata, 338.
 fasciatipennis, 334.
 humilis, 341.
 inchoata, 338.
 lateralis, 338.
 leucostylus, 340.
 levifrons, 339.
 variipennis, 335.
 varistilus, 336.
 Prosopis hewitti, 302.
 philippinensis, 302.
 Prosopius, 115.
 bankii, 115.
 insularis, 115.
 mutans, 115.
 Prosopocollus, 157.
 cavifrons, 157.
 dorsalis, 157.
 ebeninus, 157.
 lateralis, 157.
 marginatus, 157.
 palawanicus, 157.
 tenuipes, 157.
 vittatus, 157.
 Protacheron, 208.
 philippinensis, 209.
 Protaetia, 165.
 albomaculata, 165.
 ambigua, 166.
 anovittata, 166.
 arrogans, 165.
 atomaria, 167.
 banksi, 166.
 bifenestrata, 166.
 boholica, 166.
 bremei, 166.
 chloris, 166.
 chlorotica, 166.
 cinnamomea, 166.
 coeruleosignata, 166.
 compacta, 166.
 dejeani, 168.
 dubia, 166.
 ducalis, 166.
 ferruginea, 166.
 fictilis, 167.
 flavomaculata, 167.
 flavovariegata, 167.
 fusca, 167.
 gemella, 166.
 germana, 166.
 guerini, 167.
 hieroglyphica, 167.
 igorota, 294.
 incerta, 167.
 indra, 166.
 irrorata, 167.
 leucogramma, 167.
 lineata, 167.
 mandarina, 167.
 mandarinea, 167.
 manillarum, 166.
 mindoroensis, 167.
 moerens, 167.
 multiguttulata, 167.
 nigrobrunnea, 167.
 nocturna, 167.
 nox, 167.
 olivacea, 166.
 papalis, 166.
 philippinensis, 167, 295.
 var. luzonica, 167.
 plebeja, 168.
 procera, 168.

- Protaetia purpurissata*, 168.
querula, 168.
rogeri, 168.
sanguinolenta, 168.
satrapa, 168.
scepsia, 168.
subviridis, 166.
sybaritica, 166.
taciturna, 168.
tenuicollis, 168.
tristricula, 168.
venerabilis, 168.
viridana, 168.
Protelater guttatus, 388.
Proteuclea, 114.
laterivitta, 114, 293.
sulphureomaculata, 293.
Prothema, 106.
leucaspis, 106.
Prothyma, 6.
bakeri, 6.
heteromallicollis, 6.
hopkinsi, 6.
lucidicollis, 6.
schultzei, 6.
Protocerus, 147.
ruffrona, 147.
Protopaussinae, 291.
Protopaussus, 25, 291.
bakeri, 25.
Protoplectron, 209.
Psammoeus, 30.
simonis, 30.
Pselaphidae, 24.
Psephus, 61.
incaustus, 61.
orientalis, 61.
philippinensis, 61.
Pseudabax, 72.
chalcus, 72.
formosus, 73.
frater, 73.
nigricollis, 73.
opacus, 73.
purpureomicans, 73.
Pseudabryna, 347.
luzonica, 348.
Pseudapocyrtus, 131.
exsectus, 131.
formicarius, 131.
imitator, 132.
productus, 132.
schadenbergi, 132.
Pseudeumolpus, 72.
iridipennis, 72.
polychromus, 72.
superbus, 72.
Pseudobothrideres, 182.
quadratifer, 182.
Pseudocloeon, 204.
Pseudocophora, 88.
ambusta, 88.
perplexa, 88.
ventralis, 88.
Pseudofœnus, 342.
manillensis, 342.
Pseudohomonyx, 169.
javanus, 169.
Pseudomalaia, 174.
flavopilosa, 174.
pilifera, 174.
semperi, 174.
var. marginipennis, 174.
var. nigripennis, 174.
var. pallidipennis, 174.
tagala, 174.
whiteheadi, 174.
Pseudoneureclipsis, 214.
Pseudopausus, 292.
monstrosus, 292.
Pseudostrongylium, 74.
aberrans, 74.
banksi, 74.
cyanipes, 74.
opacum, 74.
semperi, 74.
viride, 74.
Psidium sp., 188.
Psilomerus, 107.
brachialis, 107.
Psilopholis, 179.
grandis, 179.
manillae, 179.
pubera, 179.
puberina, 179.
Psocidae, 197.
Psocus, 198.
bakeri, 198.
taprobanes, 198.
var. bengalensis, 198.
var. luzonensis, 198.
Psychomyia, 215.
Psylliodes, 93.
balyi, 93.
splendida, 93.
Pteroptyx, 43.
testaceum, 43.
Pterostichus, 9.
piscescens, 9.
Ptilopodius, 151.
stephegynis, 151.
Ptinidae, 49.
Ptininae, 49.
Ptinus, 49.
rugosithorax, 49.
Ptosima, 51.
indica, 51.
Pullus, 39.
brunnescens, 39.
fuscatus, 39.
Punana, 371.
negrosensis, 371.
philippina, 371.
Pundaluoya ernesti, 384.
pulchella, 385.
simplicia, 384.
Purohita, 311, 376.
cervina, 311.
maculata, 311.
nigripes, 376.

- Pycnomerus*, 182.
 reitteri, 182.
Pycnonotus plumosus, 274.
Pyrgops, 187.
 cyanipes, 187.
 exigua, 187.
 inops, 187.
 rufipennis, 187.
 stellata, 187.
 var. *aurocineta*, 187.
Pyrophanes, 44.
 appendiculata, 44.
 quadrimaculata, 44.
 var. *bimaculata*, 44.
- R**
- Raphitreus*, 25.
 bakeri, 25.
Regimbartia, 40.
 aenea, 40.
Reichenbachia, 24.
 dama, 24.
 laticollis, 24.
 manillensis, 24.
 rufa, 24.
Rhabdocnemis, 149.
 lineatocollis, 149.
 vitticollis, 149.
Rhantaticus, 15.
 signatipennis, 15.
Rhaphidepalpa, 87.
Rhaphipodus, 103.
 manillae, 103.
Rhaphuma, 107.
 fallax, 107.
 quadricolor, 107.
 semiclatratus, 107.
Rhinacosmus, 168.
 zebuanus, 168.
Rhinoplia, 171.
Rhinotermes, 352.
 (Schedorhinotermes) *longirostris*, 352.
Rhinotermittinae, 352.
Rhipidoceridae, 41, 347.
Rhipiphoridae, 77.
Rhœnanthus, 204.
Rhopalocerinae, 182.
Rhopalocerophanus, 182.
 bakeri, 182.
Rhynchites, 140.
 coelestinus, 140.
 laevigatus, 140.
 manillensis, 140.
 philippensis, 140.
Rhynchitinae, 140.
Rhynchophorus, 147.
 ferrugineus, 147, 187.
 palmarum var., 147.
 pascha, 147.
 schach, 147.
Rhyneolus, 150.
 procer, 150.
- Rhyparida*, 83.
 costata, 83.
 lateralis, 83.
Rhyparus, 161.
 philippinensis, 161.
Rhysodes, 16.
 philippinensis, 16.
Rhysodidae, 16.
Rhysopausinae, 73.
Rodolia, 39.
 podagrica, 39.
 rofopilosa, 39.
Rondibilia, 117.
 simplex, 117.
 spinosula, 117.
Rutelinae, 171.
Rybaxis, 25.
 gladiator, 25.
 simoniana, 25.
- S**
- Saccharum officinarum*, 183.
Salay salay, 237.
Samales pearl beds, 243.
Samara festiva, 373.
Sambus, 56.
 auricolor, 56.
 lugubris, 56.
Sandracottus, 15.
 baeri, 15.
 var. *ornatus*, 15.
Santalus, 28.
Saprinus, 28.
 auricollis, 28.
 varians, 28.
Sardia, 382.
 pluto, 382.
 rostrata, 382.
Sardine industry, 238.
Scaphidiidae, 26.
Scaphidium, 26.
 philippense, 26.
Scaphosoma, 26.
 philippinense, 26.
Scarabæidae, 159, 293, 349.
Scarites, 8.
 longiusculus, 8.
 mancus, 8.
 rugipennis, 8.
 semirugosus, 8.
Scaritinae, 8.
Scelodonta, 82.
 aeneola, 82.
 cupripes, 82.
 curculionoides, 82.
 dillwyni, 82.
 dispar, 82.
 insignis, 82.
 nitidula, 82.
Schizostachyum hirtiflorum, 185.
 mucronatum, 185.

- Schönherria, 180.
 hispidula, 180.
 var. *philippinica*, 180.
 palawana, 180.
 sulcipennis, 180.
- SCHULTZE, W., A catalogue of Philippine Coleoptera, 1, 95; II. Beitrag zur coleopteren Fauna der Philippinen, 291; III. Beitrag zur coleopteren Fauna der Philippinen, 347.
- Sclerocyrtus, 133.
- Sclerolips, 144.
 ochrodiscus, 144.
- Scleron, 67.
 denticolle, 67.
 discicolle, 67.
 ferrugineum, 67.
 tuberculatum, 67.
- Sclethrus, 108.
 amoenus, 108.
 newmani, 108.
- Scombridæ, 236.
- Scopaeus, 20.
 dilutus, 20.
 montalbanensis, 20.
 nitidulus, 20.
 subfaciatus, 20.
 suturalis, 20.
- Scotæus, 71.
 seriatopunctatus, 71.
- Scydmaenidæ, 25.
- Scymnus, 39.
 binotulatus, 39.
- Scython, 393.
- Sea bass, 237.
- Sea products of Mindanao and Sulu, 235, 245.
- SEALE, ALVIN, Sea products of Mindanao and Sulu, I: Food fishes and sharks, 235; Sea products of Mindanao and Sulu, II: Pearls, pearl shells, and button shells, 245.
- Sebaethæ, 93.
 badia, 93.
 contracta, 93.
- Semnodema, 58.
 bakeri, 58.
- Seow oh sit, 241.
- Serangium, 38.
 spilotum, 38.
- Sericostomatidæ, 212.
- Serixia, 117.
 literata, 117.
- Sermyloides, 91.
 banksi, 91.
 philippinensis, 91.
- Serranidæ, 237.
- Setenis, 70.
 aequatorialis, 70.
 apicipennis, 213.
 brevicornis, 70.
 manillarum, 70.
 penciligera, 70.
 podagra, 70.
- Shark-fin fishery, 239.
- Sharks and food fishes, 235.
- Sibutu pearl beds, 247.
- Silpha, 25.
 coelestis, 25.
 superba, 25.
 viridis, 25.
- Silphidæ, 25.
- Silusa, 181.
 philippina, 181.
- Silvanopsis, 30.
 simonis, 30.
- Silvanus, 30.
 frumentarius, 30.
 sexdentatus, 30.
 surinamensis, 30.
 unidentatus, 30.
- Simodactylus, 61.
 chazali, 61.
 cinnamomeus, 61.
 pulcherrimus, 61.
 sericans, 61.
 subcastaneus, 61.
- Sinoxylon, 50.
 anale, 50.
 conigerum, 50.
 macleayi, 50.
- Sintor, 122.
 philippinensis, 122.
 superciliaris, 122.
- Sipalinæ, 150.
- Sipalus, 150.
 granulatus, 150.
 misumenus, 150.
- Sisyræ bakeri, 205.
- Sitodrepa, 48.
 panicea, 48.
- Snappers, 237.
- Sobad, 237.
- Somaphorus, 29.
 ferrugineus, 29.
- Spathomeles, 34.
 darwinista, 34.
 pyramidalis, 34.
- Sphaeridiinæ, 41.
- Sphaeroderma, 93.
 negrosanum, 93.
- Sphaerometopa, 93.
 cumingi, 93.
- Sphaerotrypes, 151.
 philippinensis, 151.
- Sphenocorynus, 148.
 conformis, 148.
 irroratus, 148.
 ocellatus, 148.
- Sphenomorphoidea, 133.
- Sphenophorus, 149.
 cumingii, 149.
- Sphyrænidæ, 237.
- Spilosmylus modestus, 205.
- Spilota, 173.
- Spilovalgus, 169.
 modiglianii, 169.

- Sporæginthus amandava*, 275.
Staphylinidæ, 17, 180.
Staphylininæ, 21.
Staphylinus, 23.
 chalcus, 23.
 luzonicus, 23.
Statirinae, 75.
Stelidota octonotata, 313.
Steninae, 19.
Stenocranus, 381.
 agamopsyche, 381.
 pacificus, 382.
 pseudopacificus, 382.
Stenodastus, 31.
 humilis, 31.
Stenoplatys, 92.
 robustus, 92.
Stenopsyche, 215.
Stenosinae, 66.
Stenotarsoidea, 35.
 leoninus, 35.
 philippinarum, 35.
 tabidus, 35.
Stenus, 19.
 annamita, 19.
 bakeri, 19.
 banosanus, 19.
 montalbanensis, 19.
 philippinus, 19.
 splendidus, 19.
 velocipes, 19.
Stephanidæ (Hymenoptera) der Philippinen, 403.
Stephanoderes, 151.
 glabripennis, 151.
 philippinensis, 151.
 psidii, 151.
 pygmaeus, 151.
 sterculiae, 151.
 tamarindi, 151.
Stephanopholis, 178.
 philippinensis, 178.
Stephanorhopalus, 151.
 nulodori, 151.
Stephanus, 403.
 nigricauda, 403.
 sulcifrons, 403.
 tarsatus, 403.
 tinctipennis, 403.
 var. *atriceps*, 405.
 var. *rubripes*, 405.
 unicolor, 403.
Stephegyne diversifolia, 183.
Sterconychus, 142.
 reitteri, 142.
Sterculia sp., 188.
Sternolophus, 41.
 rufipes, 41.
Stethorus, 39.
 pauperculus, 39.
 rotundatus, 39.
Sthenias, 116.
 crocatus, 116.
 jucundus, 116.
 varius, 116.
Sticholotis, 38.
 banksi, 38.
 ovata, 38.
Stigmatium, 46.
 amboinae, 46.
 centrale, 46.
 encaustum, 46.
 laterifoveatum, 46.
 masteri, 46.
 philippinarum, 46.
 subfuscum, 46.
 tuberculibase, 46.
Stobæra, 377.
Straboscopus, 123.
 philippinensis, 123.
 tessellatus, 123.
Streblus sp., 185.
Strobiderus, 91.
 laevicollis, 91.
 rufus, 91.
Stromatium, 105.
 asperulum, 105.
 longicorne, 105.
Strongyliinae, 74.
Strongylium, 74.
 ambiguum, 74.
 cupreolineatum, 74.
 elegantissimum, 74.
 erythrocephalum, 74.
 foveolatum, 74.
 foveostriatum, 74.
 gravidum, 74.
 insolitum, 74.
 mindorense, 74.
 rubripes, 74.
Strongylodon sp., 188.
Styanax, 188.
 bakeri, 387.
 luzonicus, 188.
 subprotelater, 387.
Sudsud, 272.
Suhpalasca princeps, 208.
Sulu and Mindanao, sea products of, 235, 245.
Suphalomitus malayanus, 208.
Sutrea, 98.
 flava, 98.
Sybra, 116.
 alternans, 116.
Sympaector, 123.
 whiteheadi, 123.
Symphorobius, 205.
Symplocos ahernii, 270.
Synarmostes, 161.
 picipinus, 161.
Synia melanaria, 38.
Synonyma, 36.
 grandis, 36.
 imperialis, 36.
 versicolor, 36.
Synophthalmus, 139.
 crucifer, 139.
Systolocranius, 12.
 sulcatus, 12.

- T**
- Taeloban, 262.
- Tæniostigma, 197.
 bimaculata, 199.
- Tagalopsocus, 201.
 luzonensis, 201.
- Tagalopsyche sisyroides, 213.
- Tagalus, 68.
 impressicollis, 68.
 schultzei, 68.
- Talica, 237.
- Tamamambojee, 241.
- Tamarindus indica, 188.
- Tamban, 237.
- Tangili, 237.
- Tanguingue, 237.
- Tanygnathinus, 23.
 ruficollis, 23.
- Tapul pearl beds, 247.
- Tarsostenus, 48.
 albofasciatus, 48.
 biguttatus, 48.
 fasciatus, 48.
 succinctus, 48.
 univittatus, 48.
- Tawi Tawi pearl beds, 247.
- Telephoridae, 44.
- Temnaspis, 81.
 cumingi, 81.
 westwoodi, 81.
- Temnochilidae, 29.
- Temnochilinae, 29.
- Tenebrio, 71.
 molitor, 71.
 obscurus, 71.
- Tenebrionidae, 66.
- Tenebrioninae, 70.
- Tenebroides, 29.
 mauritanicus, 29.
- Tenerus, 47.
 cyanopterus, 47.
 mindanaonicus, 47.
 philippinarum, 47.
 praeustus, 48.
 signaticollis, 48.
- Termes, 196, 354.
 (Macrotermes) luzonensis, 357.
 manilanus, 354.
 philippinensis, 355.
 (Termes) copelandi, 358.
- Terminalia catappa, 185.
 edulis, 184.
- Terminalinus, 153.
 dipterocarpi, 153.
 terminaliae, 153.
- Termites from the Philippine Islands, 351.
- Termitidae, 196.
- Tetraglenes, 117.
 insignis, 117.
- Thalerosphyrus, 204.
 torridus, 204.
- Thaneroclerus, 47.
 buqueti, 47.
 var. pondicherryanus, 47.
- Thaumastoepus, 163.
 cupripes, 163.
 ebenus, 163.
 mcgregori, 163.
 nigraeana, 163.
 nitens, 163.
 palawanicus, 163.
 schaumi, 163.
- Then, 35.
 cincta, 35.
- Thelgetrum, 35.
 ampliatum, 35.
- Theobroma cacao, 183.
- Theogama, 146.
 jordani, 146.
- Therates, 6.
 bellulus, 6.
 caligatus, 6.
 fasciatus, 6.
 subsp. nigrostrinalis, 6.
 flavilabris, 6.
 labiatus, 6.
 subsp. bidentatus, 6.
 subsp. coracinus, 6.
 subsp. everetti, 6.
 subsp. fulvipennis, 6.
 subsp. sudans, 6.
 manillicus, 6.
 semperi, 6.
 vigilax, 6.
- Thesiastes, 24.
 crassipes, 24.
- Thlibops, 9.
 omega, 9.
- Thoracochirus, 17.
 foersteri, 17.
- Thoracophorus, 18.
 brevicristatus, 18.
 var. deletus, 18.
- Thraulius, 204.
- Thyrecephalus, 21.
 aebertisi, 21.
 philippinus, 21.
- Thyreopterinae, 10.
- Tillus, 45.
 bifasciellus, 45.
 carinulatus, 45.
 lewisi, 45.
 notatus, 45.
 var. semperanus, 45.
 var. tristis, 45.
- Tinodes, 215.
- Top shell fisheries, 262.
- Totanus stagnatilis, 274.
- Totong, 241.
- Toxicum, 71.
 flavofemoratum, 71.
 planicolle, 71.
 quadricorne, 71.
 ramiferum, 71.
- Toxoscelus, 56.
 rugicollis, 56.
- Trachycyrtus, 135.
- Trachypolis, 33.
 bowringi, 33.

- Trachypolis deyrollei*, 33.
 hispida, 33.
 var. *aequalis*, 33.
- Trachys*, 58.
 bakeri, 58.
 cornuta, 58.
 dubia, 58.
 formosana, 58.
 fraterna, 58.
 luzonica, 58.
 palawana, 58.
 princeps, 58.
 rufescens, 58.
 viridula, 58.
- Tragopus*, 143.
 pygmaeus, 143.
- Triacanthus*, 29.
 apicalis, 29.
- Triastodes*, 212.
- Tribalus*, 28.
 catenarius, 28.
 laeviodorsis, 28.
- Tribolium*, 69.
 bifoveolatum, 69.
 castaneum, 69.
 ferrugineum, 69.
 navale, 69.
 rubens, 69.
 testaceum, 69.
- Trichalus*, 42.
 cyaneiventris, 42.
 longicollis, 42.
 nigricauda, 42.
- Trichochrysea*, 83.
 philippinensis, 83.
- Trichofœnus*, 343.
 rubriceps, 343.
- Trichogomphus*, 170.
 milon, 170.
- Trichoptera*, 211.
- Trichostigmus*, 155.
 thoreyi, 155.
- Tricondyla*, 4.
 aptera, 4.
 subsp. *globoicollis*, 4.
 subsp. *ovicollis*, 4.
 subsp. *punctipennis*, 4.
 subsp. *ventricosa*, 4.
 beccarii, 4.
 cyanipes, 4.
 subsp. *brunnipes*, 4.
 subsp. *cavifrons*, 4.
 subsp. *conicicollis*, 4.
 subsp. *elongata*, 4.
 subsp. *planiceps*, 4.
 frontalis, 4.
 vicina, 4.
- Tricorythus*, 204.
- Trictenotoma*, 79.
 thomsoni, 79.
- Trictenotomidae*, 79.
- Trigonotoma*, 9.
 leutaudi, 9.
 luzonica, 9.
 palvanica, 9.
- Trigonotominae*, 9.
- Triplatoma*, 32.
 exornata, 32.
 philippinensis, 32.
 siva, 33.
- Triplogenus*, 9.
- Trocha*, 262.
- Trochoideinae*, 33.
- Trochoideus*, 33.
 desjardinsi, 33.
- Trochus niloticus*, 262.
- Troginae*, 162, 295.
- Trogophloeus*, 18.
 ceylonicus, 18.
 flavipes, 18.
 indicus, 18.
 siamensis, 18.
 simplex, 18.
- Tropidocephala*, 373.
 amboinensis, 375.
 baguioënsis, 375.
 brunnipennis, 374.
 dryas, 374.
 exima, 374.
 festiva, 373.
 flava, 373.
 nigroacuminis, 374.
 philippina, 374.
 pseudobaguioënsis, 375.
 saccharicola, 373.
 saccharivorella, 374.
- Tropidocephalini*, 372.
- Trox*, 162.
 manillensis, 295.
 montalbanensis, 162.
- Trypanaeus*, 26.
 longicollis, 26.
- Trypedinae*, 146.
- Trypeticus*, 26.
- Tua leh*, 262.
 sit, 241.
- Tucuen tree*, 186.
- Tulingan*, 237.
- Tuna*, 237.
- Turban shell fisheries*, 262.
- Turbo*, 262.
 marmoratus, 262.
- Tychiodes*, 150.
 jansoni, 150.
- Tychiosoma*, 150.
 gracilirostre, 150.
- Tylocerus*, 44.
 atricornis, 44.
- Tyraphus*, 25.
 baeri, 25.
- Ugyops*, 369.
 granulatus, 369.
 impictus, 369.
 pictifrons, 369.
- Uloma*, 69.
 contracta, 69.
 denticornis, 69.
 fracticollis, 69.

Uloma orientalis, 69.
 retusa, 69.
 rufilabris, 69.
Ulominæ, 68.
Uroloncha fuscans, 275.

V

Vellejinæ, 155.
Verania, 87.
 crocea, 37.
 nigrilabris, 38.
Vesta, 42.
 basalis, 42.
 fimbriata, 43.
 flavicollis, 43.
 proxima, 43.
 var. *minor*, 43.
 rufiventris, 43.
 xanthura, 43.
Vireo flavifrons, 273.

W

Webbia, 151.
 dipterocarpi, 151.
Webbinæ, 151.
Wrightia lanete, 183.

X

Xenocerus, 123.
 basilanus, 123.
 compressicornis, 123.
 fasciatus, 123.
 latifasciatus, 123.
 maculatus, 123.
 molitor, 123.
 puncticollis, 123.
 samaranus, 124.
 scalaris, 124.
 striatus, 124.
 varians, 124.
 ab. *furcifer*, 124.
 ab. *interruptus*, 124.
 whiteheadi, 124.
Xuthia, 181.
 parallela, 181.
Xyaste, 117.
 trigonocephala, 117.
 uniformis, 117.
 varioscapus, 117.
Xyleborus, 153.
 capito, 153.
 kraatzii, 153.

Xyleborus perforans, 153.
 trypanaeoides, 153.

Xylinades, 124.
 philippinensis, 124.
 whiteheadi, 124.

Xylipsocus, 50.
 capucinus, 50.
 eremita, 50.
 marginatus, 50.
 nicobaricus, 50.

Xylobius orientalis, 398.
 philippinus, 398.

Xyloborus perforans var. *philippinensis*, 153.

Xylophilidæ, 77.

Xylophilus, 78.
 beccarii, 78.

Xylorrhiza, 118.
 adusta, 118.

Xyloteles, 109.
 discordans, 109.

Xylothrips, 50.
 destructor, 50.
 dominicanus, 50.
 flavipes, 50.
 iracundus, 50.
 lifuanus, 50.
 mutilatus, 50.
 religiosae, 50.
 religiosus, 50.
 sinuatus, 50.

Xylotrechus, 107.
 phidias, 107.

Xylotrupes, 170.
 dichotomus, 170.
 gideon, 170.
 lorquini, 170.
 oromedon, 170.
 phorbanta, 170.
 pubescens, 170.

Xystrocera, 103.
 globosa, 103.

Z

Zena, 146.
 virgata, 146.

Zonitis, 77.
 macroxantha, 77.

Zooblast, 102.

Zygopinæ, 144.

Zyras, 23.
 compressicornis, 23.

EXAMINED.

VOL. XI, SEC. D, No. 1

JANUARY, 1916

THE PHILIPPINE JOURNAL OF SCIENCE

ALVIN J. COX, M. A., PH. D.
GENERAL EDITOR

SECTION D

GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

EDITED WITH THE COÖPERATION OF

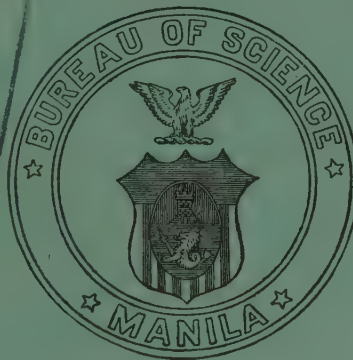
ALVIN SEALE, A. B.; R. P. COWLES, PH. D.; C. F. BAKER, A. M.
S. F. LIGHT, M. A.; C. S. BANKS, M. S.; L. D. WHARTON, M. A.
W. SCHULTZE; H. O. BEYER, M. A.; R. C. MCGREGOR, A. B.
H. E. KUPFER, A. B.

IMP. BUREAU ENTOM.

Recd. 25 JUL 1916

IMP. BUREAU ENTOM.

Recd. 25 JUL 1916



MANILA
BUREAU OF PRINTING
1916

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS**

ETHNOLOGY

A VOCABULARY OF THE IGOROT LANGUAGE AS SPOKEN BY THE BONTOC IGOROTS

By WALTER CLAYTON CLAPP

Order No. 408. Paper, 89 pages, \$0.75, postpaid.

The vocabulary is given in Igorot-English and English-Igorot.

THE NABALOI DIALECT

By OTTO SCHEERER

and

THE BATAKS OF PALAWAN

By EDWARD Y. MILLER

Order No. 403. Paper, \$0.25; half morocco, \$0.75; postpaid.

The Nabaloi Dialect (65 pages, 29 plates) and the Bataks of Palawan (7 pages, 6 plates) are bound under one cover.

THE BATAN DIALECT AS A MEMBER OF THE PHILIPPINE GROUP OF LANGUAGES

By OTTO SCHEERER

and

"F" AND "V" IN PHILIPPINE LANGUAGES

By CARLOS EVERETT CONANT

Order No. 407.

These two papers are issued under one cover, 141 pages, paper, \$0.80, postpaid.

THE SUBANUNS OF SINDANGAN BAY

By EMERSON B. CHRISTIE

Order No. 410. Paper, 121 pages, 1 map, 29 plates, \$1.25, postpaid.

Sindangan Bay is situated on the northern coast of Zamboanga Peninsula. The Subanuns of this region were studied by Mr. Christie during two periods of five and six weeks, respectively.

The 29 plates illustrate the Subanuns at work and at play; their industries, houses, altars, and implements; and the people themselves.

THE HISTORY OF SULU

By NAJEEB M. SALEEBY

Order No. 406. Paper, 275 pages, 4 maps, 2 diagrams, \$0.75, postpaid.

In the preparation of his manuscript for The History of Sulu, Doctor Saleeby spent much time and effort in gaining access to documents in the possession of the Sultan of Sulu. This book is a history of the Moros in the Philippines from the earliest times to the American occupation.

ETHNOLOGY—Continued

STUDIES IN MORO HISTORY, LAW, AND RELIGION

By NAJEEB M. SALEEBY

Order No. 405. Paper, 107 pages, 16 plates, 5 diagrams, \$0.25; half morocco, \$0.75; postpaid.

This volume deals with the earliest written records of the Moros in Mindanao. The names of the rulers of Magindanao are recorded in five folding diagrams.

NEGRITOS OF ZAMBALES

By WILLIAM ALLAN REED

Order No. 402. Paper, 83 pages, 62 plates, \$0.25; half morocco, \$0.75; postpaid.

Plates from photographs, many of which were taken for this publication, show ornaments, houses, men making fire with bamboo, bows and arrows, dances, and various types of the people themselves.

INDUSTRIES

PHILIPPINE HATS

By C. B. ROBINSON

Order No. 415. Paper, 66 pages, 8 plates, \$0.50 postpaid.

This paper is a concise record of the history and present condition of hat making in the Philippine Islands.

THE SUGAR INDUSTRY IN THE ISLAND OF NEGROS

By HERBERT S. WALKER

Order No. 412. Paper, 145 pages, 10 plates, 1 map, \$1.25, postpaid.

Considered from the viewpoint of practical utility, Mr. Walker's Sugar Industry in the Island of Negros is one of the most important papers published by the Bureau of Science. This volume is a real contribution to the subject; it is not a mere compilation, for the author was in the field and understands the conditions of which he writes.

A MANUAL OF PHILIPPINE SILK CULTURE

By CHARLES S. BANKS

Order No. 413. Paper, 53 pages, 20 plates, \$0.75, postpaid.

In A Manual of Philippine Silk Culture are presented the results of several years' actual work with silk-producing larvae together with a description of the new Philippine race.

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS—Continued**

BOTANY

A FLORA OF MANILA

By **ELMER D. MERRILL**

Order No. 419. Paper, 490 pages, \$2.50, postpaid.

Practically a complete flora of the cultivated areas in the Philippines. Descriptions, with keys, of over 1,000 species, 590 genera, and 136 families, with native names, glossary of technical terms, etc.

PHILIPPINE DIPTEROCARP FORESTS

By **WILLIAM H. BROWN** and **DONALD M. MATHEWS**

Order No. 432. Paper, 150 pages, 1 map, 13 plates, and 12 diagrams, \$1.00, postpaid.

In Philippine Dipterocarp Forests the authors present a very comprehensive discussion of the growth and development of dipterocarp trees and of the other elements of lowland Philippine forests.

INDO-MALAYAN WOODS

By **FRED W. FOXWORTHY**

Order No. 411. Paper, 182 pages, 9 plates, \$0.50, postpaid.

In Indo-Malayan Woods, Doctor Foxworthy has brought together a large amount of accurate information concerning trees yielding woods of economic value.

ZOOLOGY

A LIST OF MAMMALS OF THE PHILIPPINE ISLANDS, EXCLUSIVE OF THE CETACEA

By **NED HOLLISTER**

Order No. 418. Paper, 64 pages, \$0.50, postpaid.

The distribution of each species is given, and the original descriptions are cited.

ZOOLOGY—Continued

A MANUAL OF PHILIPPINE BIRDS

By **RICHARD C. MCGREGOR**

Order No. 103. Paper, 2 parts, 769 pages, \$4, postpaid.

A Manual of Philippine Birds contains in compact form descriptions of all the known species of Philippine birds. The usual keys and diagnoses of orders, families, and genera help the novice in identification.

A CHECK-LIST OF PHILIPPINE FISHES

By **DAVID STARR JORDAN** and **ROBERT EARL RICHARDSON**

Order No. 102. Paper, 78 pages, \$0.75, postpaid.

This list will be found a convenient guide to the synonymy of Philippine ichthyology. The nomenclature is thoroughly revised, and the distribution of each species within the Philippine Islands is given.

A CATALOGUE OF PHILIPPINE COLEOPTERA

By **W. SCHULTZE**

Order No. 436. Paper, 198 pages, \$1.00, postpaid.

This catalogue includes the names of all species of Coleoptera that have been recorded from a definite locality in the Philippine Islands. References to original descriptions and other important notes are given. The economic appendix includes comment on those species of beetles which are known to be injurious or beneficial to man.

PRICES ARE IN UNITED STATES CURRENCY

Orders for these publications may be sent to the **BUSINESS MANAGER, PHILIPPINE JOURNAL OF SCIENCE, BUREAU OF SCIENCE, MANILA, P. I.**, or to any of the agents listed below. Please give order number.

The Macmillan Company, 64-66 Fifth Avenue, New York, U. S. A.
Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin N. W., Germany.
Kelly & Walsh, Ltd., 32 Raffles Place, Singapore, Straits Settlements.
A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

CONTENTS

	Page.
SCHULTZE, W. A catalogue of Philippine Coleoptera.....	1

	U. S. currency.
The "Philippine Journal of Science" is issued as follows:	
Section A. Chemical and Geological Sciences and the Industries..	\$2.00
Section B. Tropical Medicine	3.00
Section C. Botany	2.00
Section D. General Biology, Ethnology, and Anthropology (Sec- tion D began with Volume V)	2.00
Entire Journal, Volume II, III, IV, or V	5.00
Entire Journal, beginning with Volume VI	7.00
Single numbers (except of Volume I) .....	.50
<i>Each section is separately paged and indexed.</i>	
<i>Authors receive 100 copies of their papers free.</i>	
Volume I, 1906 (not divided into sections) and supplement, sold only with a complete file of section A, B, or C.....	10.00
Supplement to Volume I (botany)	3.50
Volume I (without supplement), sold only with a complete file of section A, B, or C	6.50
Single numbers of Volume I .....	.75

Publications sent in exchange for the Philippine Journal of Science should be addressed: Library, Bureau of Science, Manila, P. I.

Subscriptions may be sent to the BUSINESS MANAGER, Philippine Journal of Science, Bureau of Science, Manila, P. I., or to any of the agents listed below:

AGENTS

The Macmillan Company, 64-66 Fifth Avenue, New York City, U. S. A.
 Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
 Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
 Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin, N. W., Germany.
 Kelly & Walsh, Limited, 32 Raffles Place, Singapore, Straits Settlements.
 A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
 Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

Entered at the post office at Manila, P. I., as second-class matter.

VOL. XI, SEC. D, No. 2

MARCH, 1916

THE PHILIPPINE JOURNAL OF SCIENCE

ALVIN J. COX, M. A., PH. D.
GENERAL EDITOR

SECTION D

GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

EDITED WITH THE COÖPERATION OF

ALVIN SEALE, A. B.; R. P. COWLES, PH. D.; C. F. BAKER, A. M.
S. F. LIGHT, M. A.; C. S. BANKS, M. S.; L. D. WHARTON, M. A.
W. SCHULTZE; H. O. BEYER, M. A.; R. C. MCGREGOR, A. B.
H. E. KUPFER, A. B.

IMP. BUREAU ENTOM.

Recd. 25 JUL 1916

IMP. BUREAU ENTOM.

Recd. 25 JUL 1916

ASST.



MANILA
BUREAU OF PRINTING
1916

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS**

ETHNOLOGY

A VOCABULARY OF THE IGOROT LANGUAGE AS SPOKEN BY THE BONTOC IGOROTS

By WALTER CLAYTON CLAPP

Order No. 408. Paper, 89 pages, \$0.75, postpaid.

The vocabulary is given in Igorot-English and English-Igorot.

THE NABALOI DIALECT

By OTTO SCHEERER

and

THE BATAKS OF PALAWAN

By EDWARD Y. MILLER

Order No. 403. Paper, \$0.25; half morocco, \$0.75; postpaid.

The Nabaloi Dialect (65 pages, 29 plates) and the Bataks of Palawan (7 pages, 6 plates) are bound under one cover.

THE BATAN DIALECT AS A MEMBER OF THE PHILIPPINE GROUP OF LANGUAGES

By OTTO SCHEERER

and

"F" AND "V" IN PHILIPPINE LANGUAGES

By CARLOS EVERETT CONANT

Order No. 407.

These two papers are issued under one cover, 141 pages, paper, \$0.80, postpaid.

THE SUBANUNS OF SINDANGAN BAY

By EMERSON B. CHRISTIE

Order No. 410. Paper, 121 pages, 1 map, 29 plates, \$1.25, postpaid.

Sindangan Bay is situated on the northern coast of Zamboanga Peninsula. The Subanuns of this region were studied by Mr. Christie during two periods of five and six weeks, respectively.

The 29 plates illustrate the Subanuns at work and at play; their industries, houses, altars, and implements; and the people themselves.

THE HISTORY OF SULU

By NAJEEB M. SALEEBY

Order No. 406. Paper, 275 pages, 4 maps, 2 diagrams, \$0.75, postpaid.

In the preparation of his manuscript for The History of Sulu, Doctor Saleeby spent much time and effort in gaining access to documents in the possession of the Sultan of Sulu. This book is a history of the Moros in the Philippines from the earliest times to the American occupation.

ETHNOLOGY—Continued

STUDIES IN MORO HISTORY, LAW, AND RELIGION

By NAJEEB M. SALEEBY

Order No. 405. Paper, 107 pages, 16 plates, 5 diagrams, \$0.25; half morocco, \$0.75; postpaid.

This volume deals with the earliest written records of the Moros in Mindanao. The names of the rulers of Magindanao are recorded in five folding diagrams.

NEGRITOS OF ZAMBALES

By WILLIAM ALLAN REED

Order No. 402. Paper, 83 pages, 62 plates, \$0.25; half morocco, \$0.75; postpaid.

Plates from photographs, many of which were taken for this publication, show ornaments, houses, men making fire with bamboo, bows and arrows, dances, and various types of the people themselves.

INDUSTRIES

PHILIPPINE HATS

By C. B. ROBINSON

Order No. 415. Paper, 66 pages, 8 plates, \$0.50 postpaid.

This paper is a concise record of the history and present condition of hat making in the Philippine Islands.

THE SUGAR INDUSTRY IN THE ISLAND OF NEGROS

By HERBERT S. WALKER

Order No. 412. Paper, 145 pages, 10 plates, 1 map, \$1.25, postpaid.

Considered from the viewpoint of practical utility, Mr. Walker's Sugar Industry in the Island of Negros is one of the most important papers published by the Bureau of Science. This volume is a real contribution to the subject; it is not a mere compilation, for the author was in the field and understands the conditions of which he writes.

A MANUAL OF PHILIPPINE SILK CULTURE

By CHARLES S. BANKS

Order No. 413. Paper, 53 pages, 20 plates, \$0.75, postpaid.

In A Manual of Philippine Silk Culture are presented the results of several years' actual work with silk-producing larvae together with a description of the new Philippine race.

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS—Continued**

BOTANY

A FLORA OF MANILA

By **ELMER D. MERRILL**

Order No. 419. Paper, 490 pages, \$2.50, postpaid.

Practically a complete flora of the cultivated areas in the Philippines. Descriptions, with keys, of over 1,000 species, 590 genera, and 136 families, with native names, glossary of technical terms, etc.

PHILIPPINE DIPTEROCARP FORESTS

By **WILLIAM H. BROWN** and **DONALD M. MATHEWS**

Order No. 432. Paper, 150 pages, 1 map, 13 plates, and 12 diagrams, \$1.00, postpaid.

In Philippine Dipterocarp Forests the authors present a very comprehensive discussion of the growth and development of dipterocarp trees and of the other elements of lowland Philippine forests.

INDO-MALAYAN WOODS

By **FRED W. FOXWORTHY**

Order No. 411. Paper, 182 pages, 9 plates, \$0.50, postpaid.

In Indo-Malayan Woods, Doctor Foxworthy has brought together a large amount of accurate information concerning trees yielding woods of economic value.

ZOOLOGY

**A LIST OF MAMMALS OF THE
PHILIPPINE ISLANDS, EXCLUSIVE
OF THE CETACEA**

By **NED HOLLISTER**

Order No. 418. Paper, 64 pages, \$0.50, postpaid.

The distribution of each species is given, and the original descriptions are cited.

ZOOLOGY—Continued

A MANUAL OF PHILIPPINE BIRDS

By **RICHARD C. MCGREGOR**

Order No. 103. Paper, 2 parts, 769 pages, \$4, postpaid.

A Manual of Philippine Birds contains in compact form descriptions of all the known species of Philippine birds. The usual keys and diagnoses of orders, families, and genera help the novice in identification.

**A CHECK-LIST OF PHILIPPINE
FISHES**

By **DAVID STARR JORDAN** and **ROBERT EARL RICHARDSON**

Order No. 102. Paper, 78 pages, \$0.75, postpaid.

This list will be found a convenient guide to the synonymy of Philippine ichthyology. The nomenclature is thoroughly revised, and the distribution of each species within the Philippine Islands is given.

**A CATALOGUE OF PHILIPPINE
COLEOPTERA**

By **W. SCHULTZE**

Order No. 436. Paper, 198 pages, \$1.00, postpaid.

This catalogue includes the names of all species of Coleoptera that have been recorded from a definite locality in the Philippine Islands. References to original descriptions and other important notes are given. The economic appendix includes comment on those species of beetles which are known to be injurious or beneficial to man.

PRICES ARE IN UNITED STATES CURRENCY

Orders for these publications may be sent to the **BUSINESS MANAGER, PHILIPPINE JOURNAL OF SCIENCE, BUREAU OF SCIENCE, MANILA, P. I.**, or to any of the agents listed below. Please give order number.

The Macmillan Company, 64-66 Fifth Avenue, New York, U. S. A.
Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin N. W., Germany.
Kelly & Walsh, Ltd., 32 Raffles Place, Singapore, Straits Settlements.
A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

CONTENTS

	Page.
SCHULTZE, W. A catalogue of Philippine Coleoptera (concluded)	95

	U. S. currency.
The "Philippine Journal of Science" is issued as follows:	
Section A. Chemical and Geological Sciences and the Industries..	\$2.00
Section B. Tropical Medicine	3.00
Section C. Botany	2.00
Section D. General Biology, Ethnology, and Anthropology (Section D began with Volume V)	2.00
Entire Journal, Volume II, III, IV, or V	5.00
Entire Journal, beginning with Volume VI	7.00
Single numbers (except of Volume I) .....	.50
<i>Each section is separately paged and indexed.</i>	
<i>Authors receive 100 copies of their papers free.</i>	
Volume I, 1906 (not divided into sections) and supplement, sold only with a complete file of section A, B, or C	10.00
Supplement to Volume I (botany)	3.50
Volume I (without supplement), sold only with a complete file of section A, B, or C	6.50
Single numbers of Volume I .....	.75

Publications sent in exchange for the Philippine Journal of Science should be addressed: Library, Bureau of Science, Manila, P. I.

Subscriptions may be sent to the BUSINESS MANAGER, Philippine Journal of Science, Bureau of Science, Manila, P. I., or to any of the agents listed below:

AGENTS

The Macmillan Company, 64-66 Fifth Avenue, New York City, U. S. A.
 Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
 Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
 Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin, N. W., Germany.
 Kelly & Walsh, Limited, 32 Raffles Place, Singapore, Straits Settlements.
 A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
 Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

Entered at the post office at Manila, P. I., as second-class matter.

IMP. BUREAU ENTOM.

Recd. 15 SEP 1916

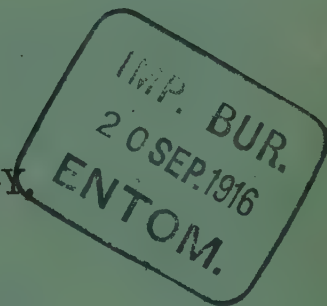
VOL. XI, SEC. D, No. 3

MAY, 1916

THE PHILIPPINE JOURNAL OF SCIENCE

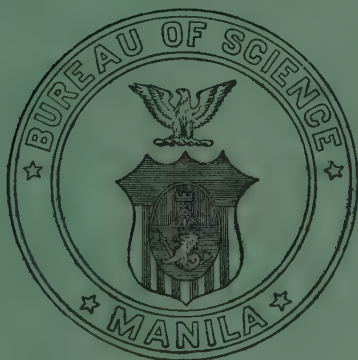
ALVIN J. COX, M. A., PH. D.
GENERAL EDITOR

SECTION D
GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY



EDITED WITH THE COÖPERATION OF

ALVIN SEALE, A. B.; R. P. COWLES, PH. D.; C. F. BAKER, A. M.
S. F. LIGHT, M. A.; C. S. BANKS, M. S.; L. D. WHARTON, M. A.
W. SCHULTZE; H. O. BEYER, M. A.; R. C. MCGREGOR, A. B.
H. E. KUPFER, A. B.



MANILA
BUREAU OF PRINTING
1916

PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE, MANILA, PHILIPPINE ISLANDS

ETHNOLOGY

A VOCABULARY OF THE IGOROT LANGUAGE AS SPOKEN BY THE BONTOC IGOROTS

By WALTER CLAYTON CLAPP

Order No. 408. Paper, 89 pages, \$0.75, postpaid.

The vocabulary is given in Igorot-English and English-Igorot.

THE NABALOI DIALECT

By OTTO SCHEERER

and

THE BATAKS OF PALAWAN

By EDWARD Y. MILLER

Order No. 403. Paper, \$0.25; half morocco, \$0.75; postpaid.

The Nabaloi Dialect (65 pages, 29 plates) and the Bataks of Palawan (7 pages, 6 plates) are bound under one cover.

THE BATAN DIALECT AS A MEMBER OF THE PHILIPPINE GROUP OF LANGUAGES

By OTTO SCHEERER

and

"F" AND "V" IN PHILIPPINE LANGUAGES

By CARLOS EVERETT CONANT

Order No. 407.

These two papers are issued under one cover, 141 pages, paper, \$0.80, postpaid.

THE SUBANUNS OF SINDANGAN BAY

By EMERSON B. CHRISTIE

Order No. 410. Paper, 121 pages, 1 map, 29 plates, \$1.25, postpaid.

Sindangan Bay is situated on the northern coast of Zamboanga Peninsula. The Subanuns of this region were studied by Mr. Christie during two periods of five and six weeks, respectively.

The 29 plates illustrate the Subanuns at work and at play; their industries, houses, altars, and implements; and the people themselves.

THE HISTORY OF SULU

By NAJEEB M. SALEEBY

Order No. 406. Paper, 275 pages, 4 maps, 2 diagrams, \$0.75, postpaid.

In the preparation of his manuscript for The History of Sulu, Doctor Saleeby spent much time and effort in gaining access to documents in the possession of the Sultan of Sulu. This book is a history of the Moros in the Philippines from the earliest times to the American occupation.

ETHNOLOGY—Continued

STUDIES IN MORO HISTORY, LAW, AND RELIGION

By NAJEEB M. SALEEBY

Order No. 405. Paper, 107 pages, 16 plates, 5 diagrams, \$0.25; half morocco, \$0.75; postpaid.

This volume deals with the earliest written records of the Moros in Mindanao. The names of the rulers of Magindanao are recorded in five folding diagrams.

NEGRITOS OF ZAMBALES

By WILLIAM ALLAN REED

Order No. 402. Paper, 83 pages, 62 plates, \$0.25; half morocco, \$0.75; postpaid.

Plates from photographs, many of which were taken for this publication, show ornaments, houses, men making fire with bamboo, bows and arrows, dances, and various types of the people themselves.

INDUSTRIES

PHILIPPINE HATS

By C. B. ROBINSON

Order No. 415. Paper, 66 pages, 8 plates, \$0.50 postpaid.

This paper is a concise record of the history and present condition of hat making in the Philippine Islands.

THE SUGAR INDUSTRY IN THE ISLAND OF NEGROS

By HERBERT S. WALKER

Order No. 412. Paper, 145 pages, 10 plates, 1 map, \$1.25, postpaid.

Considered from the viewpoint of practical utility, Mr. Walker's Sugar Industry in the Island of Negros is one of the most important papers published by the Bureau of Science. This volume is a real contribution to the subject; it is not a mere compilation, for the author was in the field and understands the conditions of which he writes.

A MANUAL OF PHILIPPINE SILK CULTURE

By CHARLES S. BANKS

Order No. 413. Paper, 53 pages, 20 plates, \$0.75, postpaid.

In A Manual of Philippine Silk Culture are presented the results of several years' actual work with silk-producing larvae together with a description of the new Philippine race.

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS—Continued**

BOTANY

A FLORA OF MANILA

By **ELMER D. MERRILL**

Order No. 419. Paper, 490 pages, \$2.50, postpaid.

Practically a complete flora of the cultivated areas in the Philippines. Descriptions, with keys, of over 1,000 species, 590 genera, and 136 families, with native names, glossary of technical terms, etc.

PHILIPPINE DIPTEROCARP FORESTS

By **WILLIAM H. BROWN** and **DONALD M. MATHEWS**

Order No. 432. Paper, 150 pages, 1 map, 13 plates, and 12 diagrams, \$1.00, postpaid.

In Philippine Dipterocarp Forests the authors present a very comprehensive discussion of the growth and development of dipterocarp trees and of the other elements of lowland Philippine forests.

INDO-MALAYAN WOODS

By **FRED W. FOXWORTHY**

Order No. 411. Paper, 182 pages, 9 plates, \$0.50, postpaid.

In Indo-Malayan Woods, Doctor Foxworthy has brought together a large amount of accurate information concerning trees yielding woods of economic value.

ZOOLOGY

**A LIST OF MAMMALS OF THE
PHILIPPINE ISLANDS, EXCLUSIVE
OF THE CETACEA**

By **NED HOLLISTER**

Order No. 418. Paper, 64 pages, \$0.50, postpaid.

The distribution of each species is given, and the original descriptions are cited.

ZOOLOGY—Continued

A MANUAL OF PHILIPPINE BIRDS

By **RICHARD C. MCGREGOR**

Order No. 103. Paper, 2 parts, 769 pages, \$4, postpaid.

A Manual of Philippine Birds contains in compact form descriptions of all the known species of Philippine birds. The usual keys and diagnoses of orders, families, and genera help the novice in identification.

**A CHECK-LIST OF PHILIPPINE
FISHES**

By **DAVID STARR JORDAN** and **ROBERT EARL RICHARDSON**

Order No. 102. Paper, 78 pages, \$0.75, postpaid.

This list will be found a convenient guide to the synonymy of Philippine ichthyology. The nomenclature is thoroughly revised, and the distribution of each species within the Philippine Islands is given.

**A CATALOGUE OF PHILIPPINE
COLEOPTERA**

By **W. SCHULTZE**

Order No. 436. Paper, 198 pages, \$1.00, postpaid.

This catalogue includes the names of all species of Coleoptera that have been recorded from a definite locality in the Philippine Islands. References to original descriptions and other important notes are given. The economic appendix includes comment on those species of beetles which are known to be injurious or beneficial to man.

PRICES ARE IN UNITED STATES CURRENCY

Orders for these publications may be sent to the **BUSINESS MANAGER, PHILIPPINE JOURNAL OF SCIENCE, BUREAU OF SCIENCE, MANILA, P. I.**, or to any of the agents listed below. Please give order number.

The Macmillan Company, 64-66 Fifth Avenue, New York, U. S. A.
Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin N. W., Germany.
Kelly & Walsh, Ltd., 32 Raffles Place, Singapore, Straits Settlements.
A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

CONTENTS

	Page.
BANKS, NATHAN. Neuropteroid insects of the Philippine Islands. (Caddice flies, bark lice, mayflies, and related orders.)	195
FLEUTIAUX, ED. Elateridæ des îles Philippines, II. (New species of Philippine click beetles.)	219
SEALE, ALVIN. Sea products of Mindanao and Sulu, I: Food fishes and sharks.	235

	U. S. currency.
The "Philippine Journal of Science" is issued as follows:	
Section A. Chemical and Geological Sciences and the Industries..	\$2.00
Section B. Tropical Medicine	3.00
Section C. Botany	2.00
Section D. General Biology, Ethnology, and Anthropology (Section D began with Volume V)	2.00
Entire Journal, Volume II, III, IV, or V	5.00
Entire Journal, beginning with Volume VI	7.00
Single numbers (except of Volume I) .....	.50
<i>Each section is separately paged and indexed.</i>	
<i>Authors receive 100 copies of their papers free.</i>	
Volume I, 1906 (not divided into sections) and supplement, sold only with a complete file of section A, B, or C.....	10.00
Supplement to Volume I (botany)	3.50
Volume I (without supplement), sold only with a complete file of section A, B, or C.....	6.50
Single numbers of Volume I .....	.75

Publications sent in exchange for the Philippine Journal of Science should be addressed: Library, Bureau of Science, Manila, P. I.

Subscriptions may be sent to the BUSINESS MANAGER, Philippine Journal of Science, Bureau of Science, Manila, P. I., or to any of the agents listed below:

AGENTS

The Macmillan Company, 64-66 Fifth Avenue, New York City, U. S. A.
 Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
 Martinus Nijhoff, Lange Voorhout 3, The Hague, Holland.
 Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin, N. W., Germany.
 Kelly & Walsh, Limited, 32 Raffles Place, Singapore, Straits Settlements.
 A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
 Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

IMP. BUREAU ENTOM.

Recd 6 NOV 1916

EXD.

VOL. XI, SEC. D, No. 4

JULY, 1916

THE PHILIPPINE JOURNAL OF SCIENCE

ALVIN J. COX, M. A., PH. D.
GENERAL EDITOR

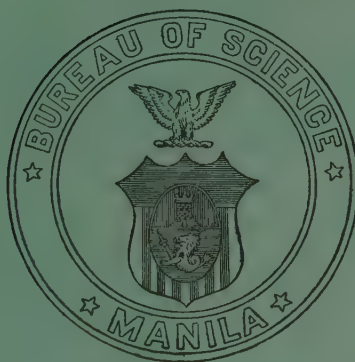
SECTION D

GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

EDITED WITH THE COÖPERATION OF

ALVIN SEALE, A. B.; R. P. COWLES, PH. D.; C. F. BAKER, A. M.
S. F. LIGHT, M. A.; C. S. BANKS, M. S.; L. D. WHARTON, M. A.
W. SCHULTZE; H. O. BEYER, M. A.; R. C. MCGREGOR, A. B.
H. E. KUPFER, A. B.

IMP. BUR.
8 - NOV. 1916
ENTOM.



MANILA
BUREAU OF PRINTING
1916

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS**

ETHNOLOGY

A VOCABULARY OF THE IGOROT LANGUAGE AS SPOKEN BY THE BONTOC IGOROTS

By WALTER CLAYTON CLAPP

Order No. 408. Paper, 89 pages, \$0.75, postpaid.

The vocabulary is given in Igorot-English and English-Igorot.

THE NABALOI DIALECT

By OTTO SCHEERER
and

THE BATAKS OF PALAWAN

By EDWARD Y. MILLER

Order No. 403. Paper, \$0.25; half morocco, \$0.75; postpaid.

The Nabaloi Dialect (65 pages, 29 plates) and the Bataks of Palawan (7 pages, 6 plates) are bound under one cover.

THE BATAN DIALECT AS A MEMBER OF THE PHILIPPINE GROUP OF LANGUAGES

By OTTO SCHEERER
and

"F" AND "V" IN PHILIPPINE LANGUAGES

By CARLOS EVERETT CONANT

Order No. 407.

These two papers are issued under one cover, 141 pages, paper, \$0.80, postpaid.

THE SUBANUNS OF SINDANGAN BAY

By EMERSON B. CHRISTIE

Order No. 410. Paper, 121 pages, 1 map, 29 plates, \$1.25, postpaid.

Sindangan Bay is situated on the northern coast of Zamboanga Peninsula. The Subanuns of this region were studied by Mr. Christie during two periods of five and six weeks, respectively.

The 29 plates illustrate the Subanuns at work and at play; their industries, houses, altars, and implements; and the people themselves.

THE HISTORY OF SULU

By NAJEEB M. SALEEBY

Order No. 406. Paper, 275 pages, 4 maps, 2 diagrams, \$0.75, postpaid.

In the preparation of his manuscript for The History of Sulu, Doctor Saleeby spent much time and effort in gaining access to documents in the possession of the Sultan of Sulu. This book is a history of the Moros in the Philippines from the earliest times to the American occupation.

ETHNOLOGY—Continued

STUDIES IN MORO HISTORY, LAW, AND RELIGION

By NAJEEB M. SALEEBY

Order No. 405. Paper, 107 pages, 16 plates, 5 diagrams, \$0.25; half morocco, \$0.75; postpaid.

This volume deals with the earliest written records of the Moros in Mindanao. The names of the rulers of Magindanao are recorded in five folding diagrams.

NEGRITOS OF ZAMBALES

By WILLIAM ALLAN REED

Order No. 402. Paper, 83 pages, 62 plates, \$0.25; half morocco, \$0.75; postpaid.

Plates from photographs, many of which were taken for this publication, show ornaments, houses, men making fire with bamboo, bows and arrows, dances, and various types of the people themselves.

INDUSTRIES

PHILIPPINE HATS

By C. B. ROBINSON

Order No. 415. Paper, 66 pages, 8 plates, \$0.50 postpaid.

This paper is a concise record of the history and present condition of hat making in the Philippine Islands.

THE SUGAR INDUSTRY IN THE ISLAND OF NEGROS

By HERBERT S. WALKER

Order No. 412. Paper, 145 pages, 10 plates, 1 map, \$1.25, postpaid.

Considered from the viewpoint of practical utility, Mr. Walker's Sugar Industry in the Island of Negros is one of the most important papers published by the Bureau of Science. This volume is a real contribution to the subject; it is not a mere compilation, for the author was in the field and understands the conditions of which he writes.

A MANUAL OF PHILIPPINE SILK CULTURE

By CHARLES S. BANKS

Order No. 413. Paper, 53 pages, 20 plates, \$0.75, postpaid.

In A Manual of Philippine Silk Culture are presented the results of several years' actual work with silk-producing larvae together with a description of the new Philippine race.

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS—Continued**

BOTANY

A FLORA OF MANILA

By **ELMER D. MERRILL**

Order No. 419. Paper, 490 pages, \$2.50, postpaid.

Practically a complete flora of the cultivated areas in the Philippines. Descriptions, with keys, of over 1,000 species, 590 genera, and 136 families, with native names, glossary of technical terms, etc.

PHILIPPINE DIPTEROCARP FORESTS

By **WILLIAM H. BROWN** and **DONALD M. MATHEWS**

Order No. 432. Paper, 150 pages, 1 map, 13 plates, and 12 diagrams, \$1.00, postpaid.

In Philippine Dipterocarp Forests the authors present a very comprehensive discussion of the growth and development of dipterocarp trees and of the other elements of lowland Philippine forests.

INDO-MALAYAN WOODS

By **FRED W. FOXWORTHY**

Order No. 411. Paper, 182 pages, 9 plates, \$0.50, postpaid.

In Indo-Malayan Woods, Doctor Foxworthy has brought together a large amount of accurate information concerning trees yielding woods of economic value.

ZOOLOGY

**A LIST OF MAMMALS OF THE
PHILIPPINE ISLANDS, EXCLUSIVE
OF THE CETACEA**

By **NED HOLLISTER**

Order No. 413. Paper, 64 pages, \$0.50, postpaid.

The distribution of each species is given, and the original descriptions are cited.

ZOOLOGY—Continued

A MANUAL OF PHILIPPINE BIRDS

By **RICHARD C. MCGREGOR**

Order No. 103. Paper, 2 parts, 769 pages, \$4, postpaid.

A Manual of Philippine Birds contains in compact form descriptions of all the known species of Philippine birds. The usual keys and diagnoses of orders, families, and genera help the novice in identification.

**A CHECK-LIST OF PHILIPPINE
FISHES**

By **DAVID STARR JORDAN** and **ROBERT EARL RICHARDSON**

Order No. 102. Paper, 78 pages, \$0.75, postpaid.

This list will be found a convenient guide to the synonymy of Philippine ichthyology. The nomenclature is thoroughly revised, and the distribution of each species within the Philippine Islands is given.

**A CATALOGUE OF PHILIPPINE
COLEOPTERA**

By **W. SCHULTZE**

Order No. 436. Paper, 198 pages, \$1.00, postpaid.

This catalogue includes the names of all species of Coleoptera that have been recorded from a definite locality in the Philippine Islands. References to original descriptions and other important notes are given. The economic appendix includes comment on those species of beetles which are known to be injurious or beneficial to man.

PRICES ARE IN UNITED STATES CURRENCY

Orders for these publications may be sent to the **BUSINESS MANAGER, PHILIPPINE JOURNAL OF SCIENCE, BUREAU OF SCIENCE, MANILA, P. I.**, or to any of the agents listed below. Please give order number.

The Macmillan Company, 64—66 Fifth Avenue, New York, U. S. A.
Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin N. W., Germany.
Kelly & Walsh, Ltd., 32 Raffles Place, Singapore, Straits Settlements.
A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

CONTENTS

	Page.
SEALE, ALVIN. Sea products of Mindanao and Sulu, II: Pearls, pearl shells, and button shells.....	245
BUNKER, PAUL D. Nesting of the Philippine glossy starling....	267
McGREGOR, RICHARD C. New or noteworthy Philippine birds, I	269
KIEFFER, J. J. Neuer Beitrag zur Kenntnis der philippinischen Cynipiden	279
KIEFFER, J. J. Beschreibung einer neuen Mymaride aus den Philippinen	289
SCHULTZE, W. II. Beitrag zur coleopteren Fauna der Philippinen	291

	U. S. currency.
The "Philippine Journal of Science" is issued as follows:	
Section A. Chemical and Geological Sciences and the Industries..	\$2.00
Section B. Tropical Medicine	3.00
Section C. Botany	2.00
Section D. General Biology, Ethnology, and Anthropology (Section D began with Volume V).....	2.00
Entire Journal, Volume II, III, IV, or V	5.00
Entire Journal, beginning with Volume VI	7.00
Single numbers (except of Volume I) .....	.50
<i>Each section is separately paged and indexed.</i>	
<i>Authors receive 100 copies of their papers free.</i>	
Volume I, 1906 (not divided into sections) and supplement, sold only with a complete file of section A, B, or C.....	10.00
Supplement to Volume I (botany)	3.50
Volume I (without supplement), sold only with a complete file of section A, B, or C.....	6.50
Single numbers of Volume I .....	.75

Publications sent in exchange for the Philippine Journal of Science should be addressed: Library, Bureau of Science, Manila, P. I.

Subscriptions may be sent to the BUSINESS MANAGER, Philippine Journal of Science, Bureau of Science, Manila, P. I., or to any of the agents listed below:

AGENTS

The Macmillan Company, 64-66 Fifth Avenue, New York City, U. S. A.
 Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
 Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
 Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin, N. W., Germany.
 Kelly & Walsh, Limited, 32 Raffles Place, Singapore, Straits Settlements.
 A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
 Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

IMP. BUREAU ENTOM.

Recd. 6 MAR 1917

EXP.

VOL. XI, SEC. D, No. 5

SEPTEMBER, 1916

THE PHILIPPINE JOURNAL OF SCIENCE

ALVIN J. COX, M. A., PH. D.
GENERAL EDITOR

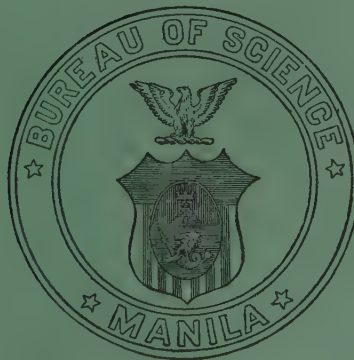
SECTION D

GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

IMP. BU
6 - MAR. 1917
ENTOM

EDITED WITH THE COÖPERATION OF

ALVIN SEALE, A. B.; R. P. COWLES, PH. D.; C. F. BAKER, A. M.
S. F. LIGHT, M. A.; C. S. BANKS, M. S.; L. D. WHARTON, M. A.
W. SCHULTZE; H. O. BEYER, M. A.; R. C. MCGREGOR, A. B.
H. E. KUPFER, A. B.



MANILA
BUREAU OF PRINTING
1916

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS**

ETHNOLOGY

**A VOCABULARY OF THE IGOROT LANGUAGE AS SPOKEN BY THE
BONTOG IGOROTS**

By WALTER CLAYTON CLAPP

Order No. 408. Paper, 89 pages, \$0.75, postpaid.

The vocabulary is given in Igorot-English and English-Igorot.

THE NABALOI DIALECT

By OTTO SCHEERER

and

THE BATAKS OF PALAWAN

By EDWARD Y. MILLER

Order No. 403. Paper, \$0.25; half morocco, \$0.75; postpaid.

The Nabaloi Dialect (65 pages, 29 plates) and the Bataks of Palawan (7 pages, 6 plates) are bound under one cover.

**THE BATAN DIALECT AS A MEMBER
OF THE PHILIPPINE GROUP
OF LANGUAGES**

By OTTO SCHEERER

and

**"F" AND "V" IN PHILIPPINE
LANGUAGES**

By CARLOS EVERETT CONANT

Order No. 407.

These two papers are issued under one cover, 141 pages, paper, \$0.80, postpaid.

THE SUBANUNS OF SINDANGAN BAY

By EMERSON B. CHRISTIE

Order No. 410. Paper, 121 pages, 1 map, 29 plates, \$1.25, postpaid.

Sindangan Bay is situated on the northern coast of Zamboanga Peninsula. The Subanuns of this region were studied by Mr. Christie during two periods of five and six weeks, respectively.

The 29 plates illustrate the Subanuns at work and at play; their industries, houses, altars, and implements; and the people themselves.

THE HISTORY OF SULU

By NAJEEB M. SALEEBY

Order No. 406. Paper, 275 pages, 4 maps, 2 diagrams, \$0.75, postpaid.

In the preparation of his manuscript for The History of Sulu, Doctor Saleeby spent much time and effort in gaining access to documents in the possession of the Sultan of Sulu. This book is a history of the Moros in the Philippines from the earliest times to the American occupation.

ETHNOLOGY—Continued

**STUDIES IN MORO HISTORY, LAW,
AND RELIGION**

By NAJEEB M. SALEEBY

Order No. 405. Paper, 107 pages, 16 plates, 5 diagrams, \$0.25; half morocco, \$0.75; postpaid.

This volume deals with the earliest written records of the Moros in Mindanao. The names of the rulers of Magindanao are recorded in five folding diagrams.

NEGRITOS OF ZAMBALES

By WILLIAM ALLAN REED

Order No. 402. Paper, 83 pages, 62 plates, \$0.25; half morocco, \$0.75; postpaid.

Plates from photographs, many of which were taken for this publication, show ornaments, houses, men making fire with bamboo, bows and arrows, dances, and various types of the people themselves.

INDUSTRIES

PHILIPPINE HATS

By C. B. ROBINSON

Order No. 415. Paper, 66 pages, 8 plates, \$0.50 postpaid.

This paper is a concise record of the history and present condition of hat making in the Philippine Islands.

**THE SUGAR INDUSTRY IN THE
ISLAND OF NEGROS**

By HERBERT S. WALKER

Order No. 412. Paper, 145 pages, 10 plates, 1 map, \$1.25, postpaid.

Considered from the viewpoint of practical utility, Mr. Walker's Sugar Industry in the Island of Negros is one of the most important papers published by the Bureau of Science. This volume is a real contribution to the subject; it is not a mere compilation, for the author was in the field and understands the conditions of which he writes.

**A MANUAL OF PHILIPPINE SILK
CULTURE**

By CHARLES S. BANKS

Order No. 413. Paper, 53 pages, 20 plates, \$0.75, postpaid.

In A Manual of Philippine Silk Culture are presented the results of several years' actual work with silk-producing larvae together with a description of the new Philippine race.

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS—Continued**

BOTANY

A FLORA OF MANILA

By **ELMER D. MERRILL**

Order No. 419. Paper, 490 pages, \$2.50, postpaid.

Practically a complete flora of the cultivated areas in the Philippines. Descriptions, with keys, of over 1,000 species, 590 genera, and 136 families, with native names, glossary of technical terms, etc.

PHILIPPINE DIPTEROCARP FORESTS

By **WILLIAM H. BROWN** and **DONALD M. MATHEWS**

Order No. 432. Paper, 150 pages, 1 map, 13 plates, and 12 diagrams, \$1.00, postpaid.

In Philippine Dipterocarp Forests the authors present a very comprehensive discussion of the growth and development of dipterocarp trees and of the other elements of lowland Philippine forests.

INDO-MALAYAN WOODS

By **FRED W. FOXWORTHY**

Order No. 411. Paper, 182 pages, 9 plates, \$0.50, postpaid.

In Indo-Malayan Woods, Doctor Foxworthy has brought together a large amount of accurate information concerning trees yielding woods of economic value.

ZOOLOGY

**A LIST OF MAMMALS OF THE
PHILIPPINE ISLANDS, EXCLUSIVE
OF THE CETACEA**

By **NED HOLLISTER**

Order No. 418. Paper, 64 pages, \$0.50, postpaid.

The distribution of each species is given, and the original descriptions are cited.

ZOOLOGY—Continued

A MANUAL OF PHILIPPINE BIRDS

By **RICHARD C. MCGREGOR**

Order No. 103. Paper, 2 parts, 769 pages, \$4, postpaid.

A Manual of Philippine Birds contains in compact form descriptions of all the known species of Philippine birds. The usual keys and diagnoses of orders, families, and genera help the novice in identification.

**A CHECK-LIST OF PHILIPPINE
FISHES**

By **DAVID STARR JORDAN** and **ROBERT EARL RICHARDSON**

Order No. 102. Paper, 78 pages, \$0.75, postpaid.

This list will be found a convenient guide to the synonymy of Philippine ichthyology. The nomenclature is thoroughly revised, and the distribution of each species within the Philippine Islands is given.

**A CATALOGUE OF PHILIPPINE
COLEOPTERA**

By **W. SCHULTZE**

Order No. 436. Paper, 198 pages, \$1.00, postpaid.

This catalogue includes the names of all species of Coleoptera that have been recorded from a definite locality in the Philippine Islands. References to original descriptions and other important notes are given. The economic appendix includes comment on those species of beetles which are known to be injurious or beneficial to man.

PRICES ARE IN UNITED STATES CURRENCY

Orders for these publications may be sent to the **BUSINESS MANAGER, PHILIPPINE JOURNAL OF SCIENCE, BUREAU OF SCIENCE, MANILA, P. I.**, or to any of the agents listed below. Please give order number.

The Macmillan Company, 64-66 Fifth Avenue, New York, U. S. A.
Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin N. W., Germany.
Kelly & Walsh, Ltd., 32 Raffles Place, Singapore, Straits Settlements.
A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

CONTENTS

	Page.
COCKERELL, T. D. A. The ceratinid bees of the Philippine Islands	301
MUIR, FREDERICK. A new Formosan Purohita (Delphacidæ)..	311
GROUVELLE, A. Nitidulidæ (Coléoptères) des îles Philippines recoltés par C. F. Baker, II [Two new species of Philippine nitidulid beetles.]	313
KIEFFER, J. J. Evaniiden (Hymenoptera) der Philippinen [New species of Philippine ensign-flies.]	317
SCHULTZE, W. III. Beitrag zur coleopteren Fauna der Philippinen [New species of beetles.]	347

	U. S. currency.
The "Philippine Journal of Science" is issued as follows:	
Section A. Chemical and Geological Sciences and the Industries..	\$2.00
Section B. Tropical Medicine	3.00
Section C. Botany	2.00
Section D. General Biology, Ethnology, and Anthropology (Section D began with Volume V)	2.00
Entire Journal, Volume II, III, IV, or V	5.00
Entire Journal, beginning with Volume VI	7.00
Single numbers (except of Volume I) .....	.50
<i>Each section is separately paged and indexed.</i>	
<i>Authors receive 100 copies of their papers free.</i>	
Volume I, 1906 (not divided into sections) and supplement, sold only with a complete file of section A, B, or C.....	10.00
Supplement to Volume I (botany)	3.50
Volume I (without supplement), sold only with a complete file of section A, B, or C	6.50
Single numbers of Volume I .....	.75

Publications sent in exchange for the Philippine Journal of Science should be addressed: Library, Bureau of Science, Manila, P. I.

Subscriptions may be sent to the BUSINESS MANAGER, Philippine Journal of Science, Bureau of Science, Manila, P. I., or to any of the agents listed below:

AGENTS

The Macmillan Company, 64-66 Fifth Avenue, New York City, U. S. A.
 Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
 Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
 Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin, N. W., Germany.
 Kelly & Walsh, Limited, 32 Raffles Place, Singapore, Straits Settlements.
 A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
 Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

IMP. BUREAU ENTOM.

Recd. 18 MAY 1917

EXAMINED

VOL. XI, SEC. D, No. 6

NOVEMBER, 1916

THE PHILIPPINE JOURNAL OF SCIENCE

ALVIN J. COX, M. A., Ph. D.
GENERAL EDITOR

SECTION D

GENERAL BIOLOGY, ETHNOLOGY,
AND ANTHROPOLOGY

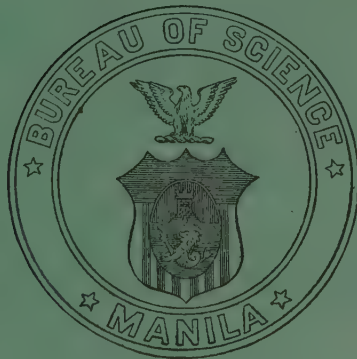
IMP. BUR.

19 MAY 1917

ENTOM.

EDITED WITH THE COÖPERATION OF

ALVIN SEALE, A. B.; R. P. COWLES, Ph. D.; C. F. BAKER, A. M.
S. F. LIGHT, M. A.; C. S. BANKS, M. S.; L. D. WHARTON, M. A.
W. SCHULTZE; H. O. BEYER, M. A.; R. C. MCGREGOR, A. B.
H. E. KUPFER, A. B.



MANILA
BUREAU OF PRINTING
1916

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS**

ETHNOLOGY

**A VOCABULARY OF THE IGOROT LANGUAGE AS SPOKEN BY THE
BONTOC IGOROTS**

By WALTER CLAYTON CLAPP

Order No. 408. Paper, 89 pages, \$0.75, postpaid.

The vocabulary is given in Igorot-English and English-Igorot.

THE NABALOI DIALECT

By OTTO SCHEERER
and

THE BATAKS OF PALAWAN

By EDWARD Y. MILLER

Order No. 403. Paper, \$0.25; half morocco, \$0.75; postpaid.

The Nabaloi Dialect (65 pages, 29 plates) and the Bataks of Palawan (7 pages, 6 plates) are bound under one cover.

**THE BATAN DIALECT AS A MEMBER
OF THE PHILIPPINE GROUP
OF LANGUAGES**

By OTTO SCHEERER
and

**"F" AND "V" IN PHILIPPINE
LANGUAGES**

By CARLOS EVERETT CONANT

Order No. 407.

These two papers are issued under one cover, 141 pages, paper, \$0.80, postpaid.

THE SUBANUNS OF SINDANGAN BAY

By EMERSON B. CHRISTIE

Order No. 410. Paper, 121 pages, 1 map, 29 plates, \$1.25, postpaid.

Sindangan Bay is situated on the northern coast of Zamboanga Peninsula. The Subanuns of this region were studied by Mr. Christie during two periods of five and six weeks, respectively.

The 29 plates illustrate the Subanuns at work and at play; their industries, houses, altars, and implements; and the people themselves.

THE HISTORY OF SULU

By NAJEEB M. SALEEBY

Order No. 406. Paper, 275 pages, 4 maps, 2 diagrams, \$0.75, postpaid.

In the preparation of his manuscript for The History of Sulu, Doctor Saleeby spent much time and effort in gaining access to documents in the possession of the Sultan of Sulu. This book is a history of the Moros in the Philippines from the earliest times to the American occupation.

ETHNOLOGY—Continued

**STUDIES IN MORO HISTORY, LAW,
AND RELIGION**

By NAJEEB M. SALEEBY

Order No. 405. Paper, 107 pages, 16 plates, 5 diagrams, \$0.25; half morocco, \$0.75; postpaid.

This volume deals with the earliest written records of the Moros in Mindanao. The names of the rulers of Magindanao are recorded in five folding diagrams.

NEGRITOS OF ZAMBALES

By WILLIAM ALLAN REED

Order No. 402. Paper, 83 pages, 62 plates, \$0.25; half morocco, \$0.75; postpaid.

Plates from photographs, many of which were taken for this publication, show ornaments, houses, men making fire with bamboo, bows and arrows, dances, and various types of the people themselves.

INDUSTRIES

PHILIPPINE HATS

By C. B. ROBINSON

Order No. 415. Paper, 66 pages, 8 plates, \$0.50 postpaid.

This paper is a concise record of the history and present condition of hat making in the Philippine Islands.

**THE SUGAR INDUSTRY IN THE
ISLAND OF NEGROS**

By HERBERT S. WALKER

Order No. 412. Paper, 145 pages, 10 plates, 1 map, \$1.25, postpaid.

Considered from the viewpoint of practical utility, Mr. Walker's Sugar Industry in the Island of Negros is one of the most important papers published by the Bureau of Science. This volume is a real contribution to the subject; it is not a mere compilation, for the author was in the field and understands the conditions of which he writes.

**A MANUAL OF PHILIPPINE SILK
CULTURE**

By CHARLES S. BANKS

Order No. 413. Paper, 53 pages, 20 plates, \$0.75, postpaid.

In A Manual of Philippine Silk Culture are presented the results of several years' actual work with silk-producing larva together with a description of the new Philippine race.

**PUBLICATIONS FOR SALE BY THE BUREAU OF SCIENCE,
MANILA, PHILIPPINE ISLANDS—Continued**

BOTANY

A FLORA OF MANILA

By **ELMER D. MERRILL**

Order No. 419. Paper, 490 pages, \$2.50, postpaid.

Practically a complete flora of the cultivated areas in the Philippines. Descriptions, with keys, of over 1,000 species, 590 genera, and 136 families, with native names, glossary of technical terms, etc.

PHILIPPINE DIPTEROCARP FORESTS

By **WILLIAM H. BROWN** and **DONALD M. MATHEWS**

Order No. 432. Paper, 150 pages, 1 map, 13 plates, and 12 diagrams, \$1.00, postpaid.

In Philippine Dipterocarp Forests the authors present a very comprehensive discussion of the growth and development of dipterocarp trees and of the other elements of lowland Philippine forests.

INDO-MALAYAN WOODS

By **FRED W. FOXWORTHY**

Order No. 411. Paper, 182 pages, 9 plates, \$0.50, postpaid.

In Indo-Malayan Woods, Doctor Foxworthy has brought together a large amount of accurate information concerning trees yielding woods of economic value.

ZOOLOGY

**A LIST OF MAMMALS OF THE
PHILIPPINE ISLANDS, EXCLUSIVE
OF THE CETACEA**

By **NED HOLLISTER**

Order No. 418. Paper, 64 pages, \$0.50, postpaid.

The distribution of each species is given, and the original descriptions are cited.

ZOOLOGY—Continued

A MANUAL OF PHILIPPINE BIRDS

By **RICHARD C. MCGREGOR**

Order No. 103. Paper. 2 parts, 769 pages, \$4, postpaid.

A Manual of Philippine Birds contains in compact form descriptions of all the known species of Philippine birds. The usual keys and diagnoses of orders, families, and genera help the novice in identification.

**A CHECK-LIST OF PHILIPPINE
FISHES**

By **DAVID STARR JORDAN** and **ROBERT EARL RICHARDSON**

Order No. 102. Paper, 78 pages, \$0.75, postpaid.

This list will be found a convenient guide to the synonymy of Philippine ichthyology. The nomenclature is thoroughly revised, and the distribution of each species within the Philippine Islands is given.

**A CATALOGUE OF PHILIPPINE
COLEOPTERA**

By **W. SCHULTZE**

Order No. 436. Paper, 198 pages, \$1.00, postpaid.

This catalogue includes the names of all species of Coleoptera that have been recorded from a definite locality in the Philippine Islands. References to original descriptions and other important notes are given. The economic appendix includes comment on those species of beetles which are known to be injurious or beneficial to man.

PRICES ARE IN UNITED STATES CURRENCY

Orders for these publications may be sent to the **BUSINESS MANAGER, PHILIPPINE JOURNAL OF SCIENCE, BUREAU OF SCIENCE, MANILA, P. I.**, or to any of the agents listed below. Please give order number.

The Macmillan Company, 64-66 Fifth Avenue, New York, U. S. A.
Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin N. W., Germany.
Kelly & Walsh, Ltd., 32 Raffles Place, Singapore, Straits Settlements.
A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

CONTENTS

	Page.
OSHIMA, MASAMITSU. A collection of termites from the Philippine Islands [New species of white ants.].....	351
MUIR, FREDERICK. Additions to the known Philippine Delphacidae (Hemiptera).....	369
FLEUTIAUX, ED. Melasidae (Coléoptères) des îles Philippines recoltés par C. F. Baker [New species of beetles.].....	387
KIEFFER, J. J. Beiträge zur Kenntnis der Gattung Loboscelidia Westwood (Hymenoptera) [New species of wasps.].....	399
KIEFFER, J. J. Neue Stephanidae (Hymenoptera) der Philippinen [New species of Philippine wasps.].....	403
Index	413

	U. S. currency.
The "Philippine Journal of Science" is issued as follows:	
Section A. Chemical and Geological Sciences and the Industries..	\$2.00
Section B. Tropical Medicine	3.00
Section C. Botany	2.00
Section D. General Biology, Ethnology, and Anthropology (Section D began with Volume V).....	2.00
Entire Journal, Volume II, III, IV, or V	5.00
Entire Journal, beginning with Volume VI	7.00
Single numbers (except of Volume I) .....	.50
<i>Each section is separately paged and indexed.</i>	
<i>Authors receive 100 copies of their papers free.</i>	
Volume I, 1906 (not divided into sections) and supplement, sold only with a complete file of section A, B, or C.....	10.00
Supplement to Volume I (botany)	3.50
Volume I (without supplement), sold only with a complete file of section A, B, or C.....	6.50
Single numbers of Volume I .....	.75

Publications sent in exchange for the Philippine Journal of Science should be addressed: Library, Bureau of Science, Manila, P. I.

Subscriptions may be sent to the BUSINESS MANAGER, Philippine Journal of Science, Bureau of Science, Manila, P. I., or to any of the agents listed below:

AGENTS

The Macmillan Company, 64-66 Fifth Avenue, New York City, U. S. A.
 Wm. Wesley & Son, 28 Essex Street, Strand, London, W. C., England.
 Martinus Nijhoff, Lange Voorhout 9, The Hague, Holland.
 Mayer & Müller, Prinz Louis Ferdinandstrasse 2, Berlin, N. W., Germany.
 Kelly & Walsh, Limited, 32 Raffles Place, Singapore, Straits Settlements.
 A. M. & J. Ferguson, 19 Baillie Street, Colombo, Ceylon.
 Thacker, Spink & Co., P. O. Box 54, Calcutta, India.

